

# SEQUENCE LISTING

<110> Gudas, Jean M.  
Haak-Frendscho, Mary  
Foord, Orit  
Liang, Meina L.  
Ahluwalia, Kiran  
Bhakta, Sunil

<120> ANTIBODIES DIRECTED TO MONOCYTE  
CHEMO-ATTRACTANT PROTEIN-1 (MCP-1) AND USES THEREOF

<130> ABGENIX.091A

<150> 60/404,802

<151> 2002-08-19

<160> 149

<170> FastSEQ for Windows Version 4.0

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<212> DNA

<213> Homosapien

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Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
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Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu
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Val	Ser	Asn	Lys	Gly	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys
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Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys
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Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln
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Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Met	Leu	Asp	Ser	Asp	Gly
385					390					395					400
Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln

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Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn		
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 tggtagcagc agaaaccagg acagcctcct aaactgctca tttactgggc atctatccgg 180  
 gaatccgggg tccctgaccg attcagttcc agcgggtctg agacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttttagtagt 300  
 ccgtggacgt tgggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtga taacgccctc 480  
 caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc 540  
 ctacgagcga ccttgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600  
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 <213> Homosapien

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 Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Ile Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Ser Ser Gly Ser Glu Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Phe Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu  
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gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
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<210> 8
<211> 159
<212> PRT
<213> Homosapien

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20          25          30
Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Leu Gly Gln
35          40          45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50          55          60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65          70          75          80
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85          90          95
Tyr Tyr Arg Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100         105         110
Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115         120         125
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
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<210> 9
<211> 556
<212> PRT
<213> Homosapien

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20          25          30
Gly Ala Ala Gly Ala Ala Gly Cys Cys Thr Gly Gly Gly Gly Cys Cys
35          40          45
Thr Cys Ala Gly Thr Gly Ala Ala Gly Gly Thr Cys Thr Cys Cys Thr
50          55          60
Gly Cys Ala Ala Gly Gly Thr Thr Thr Cys Cys Gly Gly Ala Thr Ala
65          70          75          80
Cys Ala Cys Cys Cys Thr Cys Ala Cys Thr Gly Ala Ala Thr Thr Ala

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				85					90					95	
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	130					135					140				
Gly	Gly	Ala	Gly	Gly	Thr	Thr	Thr	Gly	Ala	Thr	Cys	Cys	Thr	Gly	
145					150				155					160	
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Cys	Thr	Ala	Cys	Gly	Cys	Ala	Cys	Ala	Gly	Ala	Ala	Gly	Thr	Thr	Cys
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Thr	Gly	Ala	Cys	Cys	Gly	Ala	Gly	Gly	Ala	Cys	Ala	Cys	Ala	Thr	Cys
	210				215					220					
Thr	Ala	Cys	Ala	Gly	Ala	Cys	Ala	Cys	Ala	Gly	Cys	Cys	Thr	Ala	Cys
225					230				235					240	
Ala	Thr	Gly	Gly	Ala	Gly	Cys	Thr	Gly	Ala	Gly	Cys	Ala	Gly	Cys	Cys
			245					250						255	
Thr	Gly	Ala	Gly	Ala	Thr	Cys	Thr	Gly	Ala	Gly	Gly	Ala	Cys	Ala	Cys
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	275					280					285				
Gly	Cys	Ala	Ala	Cys	Ala	Ala	Cys	Gly	Ala	Thr	Thr	Thr	Thr	Thr	Thr
	290				295					300					
Gly	Gly	Ala	Gly	Thr	Gly	Gly	Thr	Thr	Ala	Thr	Thr	Ala	Thr	Ala	Ala
305					310				315					320	
Cys	Thr	Ala	Cys	Thr	Gly	Gly	Gly	Gly	Cys	Cys	Ala	Gly	Gly	Gly	Ala
			325				330					335			
Ala	Cys	Cys	Cys	Thr	Gly	Gly	Thr	Cys	Ala	Cys	Cys	Gly	Thr	Cys	Thr
		340					345					350			
Cys	Cys	Thr	Cys	Ala	Gly	Cys	Cys	Thr	Cys	Cys	Ala	Cys	Cys	Ala	Ala
	355					360					365				
Gly	Gly	Gly	Cys	Cys	Cys	Ala	Thr	Cys	Gly	Gly	Thr	Cys	Thr	Thr	Cys
	370				375					380					
Cys	Cys	Cys	Cys	Thr	Gly	Gly	Cys	Gly	Cys	Cys	Cys	Thr	Gly	Cys	Thr
385					390				395					400	
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Gly	Gly	Cys	Thr	Gly	Cys	Cys	Thr	Gly	Gly	Thr	Cys	Ala	Ala	Gly	Gly
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Ala	Cys	Thr	Ala	Cys	Thr	Thr	Cys	Cys	Cys	Cys	Gly	Ala	Ala	Cys	Cys
	450				455					460					
Gly	Gly	Thr	Gly	Ala	Cys	Gly	Gly	Thr	Gly	Thr	Cys	Gly	Thr	Gly	Gly
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Ala	Ala	Cys	Thr	Cys	Ala	Gly	Gly	Cys	Gly	Cys	Thr	Cys	Thr	Gly	Ala
			485				490					495			
Cys	Cys	Ala	Gly	Cys	Gly	Gly	Cys	Gly	Thr	Gly	Cys	Ala	Cys	Ala	Cys
		500				505					510				
Cys	Thr	Thr	Cys	Cys	Cys	Ala	Gly	Cys	Thr	Gly	Thr	Cys	Cys	Thr	Ala
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 Ala Cys Thr Cys Cys Cys Thr Cys Ala Gly Cys Ala  
 545 550 555

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 <212> PRT  
 <213> Homosapien

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 35 40 45  
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe  
 50 55 60  
 Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr  
 65 70 75 80  
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95  
 Ala Thr Asn Asp Phe Trp Ser Gly Tyr Asn Tyr Trp Gly Gln Gly  
 100 105 110  
 Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
 115 120 125  
 Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu  
 130 135 140  
 Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp  
 145 150 155 160  
 Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu  
 165 170 175  
 Gln Ser Ser Gly Leu Tyr Ser Leu Ser  
 180 185

<210> 11  
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 <212> DNA  
 <213> Homosapien

<400> 11  
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 tggtagcaac agaaaccagg acagcctcct aaactgctca tttactgggc atctatccgg 180  
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
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 ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
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 caatcgggta 490

<210> 12

<211> 163  
 <212> PRT  
 <213> Homosapien

<400> 12  
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 Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Ile Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Phe Tyr Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
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 Gln Ser Gly

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 <211> 543  
 <212> DNA  
 <213> Homosapien

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 atggagctga gcagcctaag atctgaggac acggccgtgt attactgtgc aaccaacgat 300  
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		35					40					45			
Gly	Gly	Phe	Asp	Pro	Glu	Asp	Asp	Glu	Thr	Ile	Tyr	Ala	Gln	Lys	Phe
	50					55					60				
Gln	Asp	Arg	Val	Thr	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Ala	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
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Ala	Thr	Asn	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Cys	Trp	Gly	Gln	Gly
		100						105					110		
Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe
	115						120					125			
Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu
	130					135					140				
Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp
145					150					155					160
Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu
			165					170						175	
Gln	Ser	Ser	Gly	Leu											
			180												

<210> 15  
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 tggtagcagc agagaccagg acagcctcct aagctgctca tttactgggc atctaccgg 180  
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatagtagt 300  
 ccgtggacgt tccggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
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 Pro Asn Asn Lys Asn Phe Leu Val Trp Tyr Gln Gln Arg Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80

Ile	Ser	Ser	Leu	Gln	Ala	Glu	Asp	Val	Ala	Val	Tyr	Tyr	Cys	Gln	Gln
			85						90					95	
Tyr	Tyr	Ser	Ser	Pro	Trp	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile
		100						105					110		
Lys	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp
		115					120					125			
Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn
	130					135					140				
Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn	Ala	Leu
145					150					155					160
Gln	Ser	Gly													

<210> 17  
 <211> 1335  
 <212> DNA  
 <213> Homosapien

<400> 17

caggtccagc	tggtacagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcttgcaagg	tttccggata	cacctcact	gaattatcca	tgcactgggt	gcgacaggct	120
cctggaaaag	ggcttgagtg	gatgggaggt	tttgatcctg	aagatgggtga	aacaatctac	180
gcacagaagt	tccagggcag	agtcaccatg	accgaggaca	catctacaga	cacagtctac	240
atggagctga	gcagcctgag	atctgaggac	acggccatgt	attactgtgc	aacacgggag	300
ttttggactg	gttattttga	ccactggggc	cagggaaacc	tggtcaccgt	ctcctcagcc	360
tccaccaagg	gcccacgggt	cttccccctg	gcgcccctgt	ccaggagcac	ctccgagagc	420
acagcggccc	tgggctgcct	ggtcaaggac	tacttccccg	aaccgggtgac	ggtgtcgtgg	480
aactcaggcg	ctctgaccag	cggcgtgcac	accttcccag	ctgtcctaca	gtcctcagga	540
ctctactccc	tcagcagcgt	ggtgaccgtg	ccctccagca	acttcggcac	ccagacctac	600
acctgcaacg	tagatcacia	gcccagcaac	accaagggtg	acaagacagt	tgagcgcaaa	660
tggtgtgtcg	agtgccacc	gtgccagca	ccacctgtgg	caggaccgtc	agtcttctc	720
ttcccccaa	aaccgaagga	cacctcatg	atctcccga	cccctgaggt	cacgtgcgtg	780
gtggtggacg	tgagccacga	agaccccag	gtccagttca	actggtacgt	ggacggcgtg	840
gaggtgcata	atgccaagac	aaagccacgg	gaggagcagt	tcaacagcac	gttccgtgtg	900
gtcagcgtcc	tcaccgttgt	gcaccaggac	tggctgaacg	gcaaggagta	caagtgaag	960
gtctccaaca	aaggcctccc	agccccatc	gagaaaacca	tctccaaaac	caaagggcag	1020
ccccgagaac	cacaggtgta	cacctgccc	ccatcccggg	aggagatgac	caagaaccag	1080
gtcagcctga	cctgcctggt	caaaggcttc	taccccagcg	acatcgccgt	ggagtgggag	1140
agcaatgggc	agccggagaa	caactacaag	accacacctc	ccatgctgga	ctccgacggc	1200
tccttcttcc	tctacagcaa	gctcaccgtg	gacaagagca	ggtggcagca	ggggaacgtc	1260
ttctcatgct	ccgtgatgca	tgaggctctg	cacaaccact	acacgcagaa	gagcctctcc	1320
ctgtctccgg	gtaaa					1335

<210> 18  
 <211> 445  
 <212> PRT  
 <213> Homosapien

<400> 18

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1			5					10					15		
Ser	Val	Lys	Val	Ser	Cys	Lys	Val	Ser	Gly	Tyr	Thr	Leu	Thr	Glu	Leu
		20						25				30			
Ser	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met

		35					40				45				
Gly	Gly	Phe	Asp	Pro	Glu	Asp	Gly	Glu	Thr	Ile	Tyr	Ala	Gln	Lys	Phe
	50					55					60				
Gln	Gly	Arg	Val	Thr	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Val	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Met	Tyr	Tyr	Cys
			85						90					95	
Ala	Thr	Arg	Glu	Phe	Trp	Thr	Gly	Tyr	Phe	Asp	His	Trp	Gly	Gln	Gly
			100					105					110		
Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe
		115					120					125			
Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu
	130					135					140				
Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp
145					150					155					160
Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu
			165						170					175	
Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro	Ser
		180						185					190		
Ser	Asn	Phe	Gly	Thr	Gln	Thr	Tyr	Thr	Cys	Asn	Val	Asp	His	Lys	Pro
	195						200					205			
Ser	Asn	Thr	Lys	Val	Asp	Lys	Thr	Val	Glu	Arg	Lys	Cys	Cys	Val	Glu
	210					215					220				
Cys	Pro	Pro	Cys	Pro	Ala	Pro	Pro	Val	Ala	Gly	Pro	Ser	Val	Phe	Leu
225					230					235					240
Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu
			245						250					255	
Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Gln
		260						265					270		
Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys
	275						280					285			
Pro	Arg	Glu	Gln	Gln	Phe	Asn	Ser	Thr	Phe	Arg	Val	Val	Ser	Val	Leu
	290					295					300				
Thr	Val	Val	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys
305				310						315					320
Val	Ser	Asn	Lys	Gly	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys
			325						330					335	
Thr	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser
		340						345					350		
Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys
		355					360					365			
Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln
	370					375					380				
Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Met	Leu	Asp	Ser	Asp	Gly
385				390						395					400
Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln
			405						410					415	
Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn
		420						425					430		
His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys			
	435						440					445			

<210> 19  
 <211> 660

<212> DNA  
 <213> Homosapien

<400> 19  
 gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60  
 atcaactgca agtccagcca gagtgtttta tacagctcca acaataagaa ctacttagtt 120  
 tggatcagc agaaaccagg acagcctcct aaactgctca tttactgggc atctatccgg 180  
 gaatccgggg tcccggaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatagtact 300  
 ccgctcactt tcggcggagg gaccaaggtg gagatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 480  
 caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc 540  
 ctcagcagca cctcgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600  
 gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 20  
 <211> 220  
 <212> PRT  
 <213> Homosapien

<400> 20  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser  
 20 25 30  
 Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Ile Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Tyr Ser Thr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu  
 145 150 155 160  
 Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp  
 165 170 175  
 Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr  
 180 185 190  
 Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser  
 195 200 205  
 Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys  
 210 215 220

<210> 21  
 <211> 543

<212> DNA  
 <213> Homosapien

<400> 21  
 caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60  
 tcctgcaagg tttccggata cacttttact gaattatcca tgcactgggt gcgacaggct 120  
 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaagctac 180  
 gcacagaagt tccggggcag agtcaccatg accgaggaca catctacaga cacagcccac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aaccaacgat 300  
 ttttgagtg gttattttga ctattggggc cagggaaacc tggtcaccgt ctctcagcc 360  
 tccaccaagg gcccatcggt cttccccctg gcgcctgct ccaggagcac ctccgagagc 420  
 acagcggccc tgggctgctt ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480  
 aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga 540  
 ctt 543

<210> 22  
 <211> 181  
 <212> PRT  
 <213> Homosapien

<400> 22  
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1 5 10 15  
 Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Glu Leu  
 20 25 30  
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
 35 40 45  
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ser Tyr Ala Gln Lys Phe  
 50 55 60  
 Arg Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala His  
 65 70 75 80  
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95  
 Ala Thr Asn Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly  
 100 105 110  
 Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
 115 120 125  
 Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu  
 130 135 140  
 Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp  
 145 150 155 160  
 Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu  
 165 170 175  
 Gln Ser Ser Gly Leu  
 180

<210> 23  
 <211> 460  
 <212> DNA  
 <213> Homosapien

<400> 23  
 gacatccaga tgaccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60  
 atcacttgtc gggcgagtca gggattgac atctacttag cctggatatca gcagaaacca 120

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gggaaagccc ctaagctcct gatcaatgct gcatccagtt tgcaaaacgg ggtcccctca 180
aggttcggcg gcagtggatc tgggacagat ttcactctca ccatcagcgg cctgcagcct 240
gaagattttg caacttacta ttgtcaactg acttactttt tcccgtaggac gttcggccaa 300
gggaccaagg tggaatatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcca 360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc 460

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<210> 24  
 <211> 153  
 <212> PRT  
 <213> Homosapien

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<400> 24
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
1           5           10           15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Asp Ile Tyr
20          25          30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35          40          45
Asn Ala Ala Ser Ser Leu Gln Asn Gly Val Pro Ser Arg Phe Gly Gly
50          55          60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Gly Leu Gln Pro
65          70          75          80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Leu Thr Tyr Phe Phe Pro Trp
85          90          95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100         105         110
Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115         120         125
Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130         135         140
Lys Val Gln Trp Lys Val Asp Asn Ala
145         150

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<210> 25  
 <211> 543  
 <212> DNA  
 <213> Homosapien

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<400> 25
cagggtccagc tgggtacagtc tggggctgag gtgaagaagc ctgggggcctc agtgaagggtc 60
tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacgaatt 120
cctggaaaag ggcttgagtg gatgggaggt tttgaccctg aagatgggtga aacaatctac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacaaacgat 300
ttttggagtg gctattgggg ccaactggggc caggggaacc tggtcaccgt ctccctcagcc 360
tccaccaagg gcccatcggt cttccccctg ggcacctgct ccaggagcac ctccgagagc 420
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga 540
ctt 543

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<210> 26  
 <211> 181  
 <212> PRT

<213> Homosapien

<400> 26

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala	
1			5					10					15			
Ser	Val	Lys	Val	Ser	Cys	Lys	Val	Ser	Gly	Tyr	Thr	Leu	Thr	Glu	Leu	
		20					25					30				
Ser	Met	His	Trp	Val	Arg	Arg	Ile	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met	
		35					40					45				
Gly	Gly	Phe	Asp	Pro	Glu	Asp	Gly	Glu	Thr	Ile	Tyr	Ala	Gln	Lys	Phe	
	50					55				60						
Gln	Gly	Arg	Val	Thr	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Ala	Tyr	
65					70				75						80	
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	
			85					90					95			
Ala	Thr	Asn	Asp	Phe	Trp	Ser	Gly	Tyr	Trp	Gly	His	Trp	Gly	Gln	Gly	
		100					105					110				
Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe	
	115					120					125					
Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu	
	130					135				140						
Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp	
145					150				155						160	
Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu	
				165				170					175			
Gln	Ser	Ser	Gly	Leu												
			180													

<210> 27

<211> 459

<212> DNA

<213> Homosapien

<400> 27

gacatcgtga	tgacccagtc	tccagactcc	ctggctgtgt	ctctgggcga	gagggccacc	60
atcaactgca	agtccagcca	gagtgtttta	tacagctcca	acaataagaa	ctacctagct	120
tggtaccaag	ctgctcattt	actggacata	tatccgggaa	tccgggggtcc	ctgaccgatt	180
cagtggcagc	gggtctggga	cagatttcac	tctcaccatc	agcagcctgc	aggctgaaga	240
tgtggcagtt	tattactgtc	aggaacatta	tagtattccg	tggacgttcg	gccaagggac	300
caaggtggaa	atcaaacgaa	ctgtggctgc	accatctgtc	ttcatcttcc	cgccatctga	360
tgagcagttg	aactgcctct	gttgtgtgcc	tgctgaataa	cttctatccc	agagaggcca	420
aagtacagtg	gaaggtggat	aacgcctccc	aatcgggta			459

<210> 28

<211> 149

<212> PRT

<213> Homosapien

<400> 28

Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Asp	Ser	Leu	Ala	Val	Ser	Leu	Gly	
1			5					10					15			
Glu	Arg	Ala	Thr	Ile	Asn	Cys	Lys	Ser	Ser	Gln	Ser	Val	Leu	Tyr	Ser	
		20					25					30				
Ser	Asn	Asn	Lys	Asn	Tyr	Leu	Ala	Trp	Tyr	Leu	Leu	Ile	Tyr	Trp	Thr	





Pro Leu Ala Pro Cys Ser Arg Asn Thr Ser Glu Ser Thr Ala Ala Leu  
 130 135 140  
 Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp  
 145 150 155 160  
 Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala  
 165 170

<210> 31  
 <211> 490  
 <212> DNA  
 <213> Homosapien

<400> 31  
 gacatcgtga tgacccagtc tccagactcc ctggctgcgt ctctgggcga gagggccacc 60  
 atcaactgca agtccagtca gagggtttta tacagggtcca acaataagaa ttatttagtt 120  
 tgggtaccagc aaaaaccagg acagcctcct aagctgctca ttactgggc atctatccgg 180  
 gaatccggggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttatttct gtcagcaata ttatagttct 300  
 ccgtggacgt ttggccaagg gaccaaggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 480  
 caatcgggta 490

<210> 32  
 <211> 163  
 <212> PRT  
 <213> Homosapien

<400> 32  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Ala Ser Leu Gly  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Arg  
 20 25 30  
 Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Ile Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Phe Cys Gln Gln  
 85 90 95  
 Tyr Tyr Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu  
 145 150 155 160  
 Gln Ser Gly

<210> 33

<211> 545  
 <212> DNA  
 <213> Homosapien

<400> 33  
 caggtccagc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60  
 tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacaggct 120  
 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacctggtat 300  
 agtgggatct acttagcttt tgatatctgg ggccaaggga caatgggtcac cgtctcttca 360  
 gcctccacca agggcccatc ggtcttcccc ctggcgccct gctccaggag cacctccgag 420  
 agcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg 480  
 tggaactcag gcgctctgac cagcggcgtg cacaccttcc cagctgtcct acagtcctca 540  
 ggatt 545

<210> 34  
 <211> 181  
 <212> PRT  
 <213> Homosapien

<400> 34  
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1 5 10 15  
 Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu  
 20 25 30  
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
 35 40 45  
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe  
 50 55 60  
 Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr  
 65 70 75 80  
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95  
 Ala Thr Trp Tyr Ser Gly Ile Tyr Leu Ala Phe Asp Ile Trp Gly Gln  
 100 105 110  
 Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val  
 115 120 125  
 Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala  
 130 135 140  
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser  
 145 150 155 160  
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val  
 165 170 175  
 Leu Gln Ser Ser Gly  
 180

<210> 35  
 <211> 472  
 <212> DNA  
 <213> Homosapien

<400> 35  
 gaaattgtgc tgactcagtc tccagacttt cagtctgtga ctccaaagga gaaagtcacc 60

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atcacctgcc gggccagtca gagcattggt agtagcttac actggtacca gcagaaacca 120
gatcagtctc caaagctcct catcaagtat gcttcccagt cttcttcagg ggtcccctcg 180
aggttcagtg gcagtggatc tgggacagat ttcaccctca ccatcaatag cctggaagct 240
gaagatgctg caacgtatta ctgtcatcag agtagtagtt tacctcacac tttcggcgga 300
gggaccaagg tggagatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcga 360
tctgatgagc agttgaaatc tggaaactgcc tctgttgtgt gcctgctgaa taacttctat 420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg ta 472

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<210> 36
<211> 157
<212> PRT
<213> Homosapien

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```

<400> 36
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
 1           5           10           15
Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Ser Ser
 20           25           30
Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile
 35           40           45
Lys Tyr Ala Ser Gln Ser Phe Ser Gly Val Pro Ser Arg Phe Ser Gly
 50           55           60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala
 65           70           75           80
Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Ser Ser Ser Leu Pro His
 85           90           95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100          105          110
Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115          120          125
Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130          135          140
Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly
145          150          155

```

```

<210> 37
<211> 1335
<212> DNA
<213> Homosapien

```

```

<400> 37
cagggtccagt tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcttgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacaggct 120
cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatggtga aacaatctac 180
gcacagaagt tccagggcag agtcagtatg accgaggaca catccacaga cacagcctac 240
atggagctga gcagcctgag atctgaggac acggcctgtg atttctgtgc aaccaacgaa 300
ttttggagtg gttatatttga ctactggggc cagggaaacc tggtcaccgt ctccctcagcc 360
tccaccaagg gcccatcggg cttccccctg gcgccttgc caggagcac ctccgagagc 420
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga 540
ctctactccc tcagcagcgt ggtgaccgtg cctccagca acttcggcac ccagacctac 600
acctgcaacg tagatcaciaa gccagcaaac accaagggtg acaagacagt tgagcgcaaa 660
tggtgtgtcg agtgcaccac gtgcccagca ccacctgtgg caggaccgtc agtcttcttc 720
ttccccccaa aaccaagga caccctcatg atctcccgga cccctgaggt cacgtgcgtg 780

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gtggtggacg tgagccacga agaccccgag gtccagttca actggtacgt ggacggcgtg 840
gaggtgcata atgccaagac aaagccacgg gaggagcagt tcaacagcac gttccgtgtg 900
gtcagcgtcc tcaccgttgt gcaccaggac tggctgaacg gcaaggagta caagtgcaag 960
gtctccaaca aaggcctccc agcccccatc gagaaaacca tctccaaaac caaagggcag 1020
ccccgagaac cacaggtgta caccctgccc ccatcccggg aggagatgac caagaaccag 1080
gtcagcctga cctgcctggg caaaggcttc taccccagcg acatcgccgt ggagtgggag 1140
agcaatgggc agccggagaa caactacaag accacacctc ccatgctgga ctccgacggc 1200
tccttcttcc tctacagcaa gctcaccgtg gacaagagca ggtggcagca ggggaacgtc 1260
ttctcatgct cctgatgca tgaggctctg cacaaccact acacgcagaa gagcctctcc 1320
ctgtctccgg gtaaa 1335

```

<210> 38  
 <211> 445  
 <212> PRT  
 <213> Homosapien

```

<400> 38
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1          5          10          15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
20        25        30
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
35        40        45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
50        55        60
Gln Gly Arg Val Ser Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
65        70        75        80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys
85        90        95
Ala Thr Asn Glu Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly
100       105       110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
115       120       125
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
130       135       140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
145       150       155       160
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
165       170       175
Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
180       185       190
Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro
195       200       205
Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu
210       215       220
Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu
225       230       235       240
Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
245       250       255
Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln
260       265       270
Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
275       280       285
Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu
290       295       300

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Thr	Val	Val	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys
305					310					315					320
Val	Ser	Asn	Lys	Gly	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys
				325					330					335	
Thr	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser
			340					345					350		
Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys
		355					360					365			
Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln
	370					375					380				
Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Met	Leu	Asp	Ser	Asp	Gly
385					390					395					400
Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln
				405					410					415	
Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn
			420					425					430		
His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys			
		435					440					445			

<210> 39  
 <211> 660  
 <212> DNA  
 <213> Homosapien

<400> 39  
 gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60  
 atcaactgca agtccagcca gagggtttta tacagctcca acaataagaa ctatttagtt 120  
 tggtagcagc agagaccagg acagcctcct aagctgctca ttactgggc atctaccgg 180  
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata tttttattct 300  
 ccgtggacgt tcggccaagg gaccaaggta gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtga taacgccttc 480  
 caatcgggta actcccagga gagggtcaca gaggaggaca gcaaggacag caccacagc 540  
 ctacgagcga ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600  
 gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 40  
 <211> 220  
 <212> PRT  
 <213> Homosapien

Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Asp	Ser	Leu	Ala	Val	Ser	Leu	Gly
1				5				10					15		
Glu	Arg	Ala	Thr	Ile	Asn	Cys	Lys	Ser	Ser	Gln	Ser	Val	Leu	Tyr	Ser
			20					25					30		
Ser	Asn	Asn	Lys	Asn	Tyr	Leu	Val	Trp	Tyr	Gln	Gln	Arg	Pro	Gly	Gln
		35					40					45			
Pro	Pro	Lys	Leu	Leu	Ile	Tyr	Trp	Ala	Ser	Thr	Arg	Glu	Ser	Gly	Val
	50					55				60					
Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr
65					70					75					80

Ile	Ser	Ser	Leu	Gln	Ala	Glu	Asp	Val	Ala	Val	Tyr	Tyr	Cys	Gln	Gln
			85						90					95	
Tyr	Phe	Tyr	Ser	Pro	Trp	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile
			100					105					110		
Lys	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp
			115				120					125			
Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn
			130			135					140				
Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn	Ala	Leu
145					150					155					160
Gln	Ser	Gly	Asn	Ser	Gln	Glu	Ser	Val	Thr	Glu	Gln	Asp	Ser	Lys	Asp
			165					170						175	
Ser	Thr	Tyr	Ser	Leu	Ser	Ser	Thr	Leu	Thr	Leu	Ser	Lys	Ala	Asp	Tyr
			180				185						190		
Glu	Lys	His	Lys	Val	Tyr	Ala	Cys	Glu	Val	Thr	His	Gln	Gly	Leu	Ser
		195					200					205			
Ser	Pro	Val	Thr	Lys	Ser	Phe	Asn	Arg	Gly	Glu	Cys				
		210					215				220				

<210> 41  
 <211> 556  
 <212> DNA  
 <213> Homosapien

<400> 41  
 caggtccagc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60  
 tcctgcaagg tttccggaca cattttcact gaattatcca tacactgggt gcgacaggct 120  
 cctggaaaag ggctcgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagtctac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aaccaacgat 300  
 ttttggagtg gttattttga ctactggggc caggggaacc tggtcaccgt ctctcagcc 360  
 tccaccaagg gcccatcggt cttccccctg gcgccttgct ccaggagcac ctccgagagc 420  
 acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480  
 aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga 540  
 ctctactccc tcagca 556

<210> 42  
 <211> 185  
 <212> PRT  
 <213> Homosapien

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1			5						10					15	
Ser	Val	Lys	Val	Ser	Cys	Lys	Val	Ser	Gly	His	Ile	Phe	Thr	Glu	Leu
			20					25					30		
Ser	Ile	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met
		35					40					45			
Gly	Gly	Phe	Asp	Pro	Glu	Asp	Gly	Glu	Thr	Ile	Tyr	Ala	Gln	Lys	Phe
	50					55					60				
Gln	Gly	Arg	Val	Thr	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Val	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85						90					95	

Ala	Thr	Asn	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Tyr	Trp	Gly	Gln	Gly
			100					105					110		
Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe
		115					120					125			
Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu
		130				135					140				
Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp
145					150					155					160
Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu
				165					170					175	
Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser							
			180					185							

<210> 43  
 <211> 490  
 <212> DNA  
 <213> Homosapien

<400> 43  
 gacatcgtga tgaccagtc tccaggctcc ctggctgtgt ctctgggcga gagggccacc 60  
 atcaactgca agtccagcca gagtatttta ttcagggtcca acaataagaa ctatttaact 120  
 tgggtaccagc agaaaccagg acagcctcct aaactgctca tttactgggc atctatccgg 180  
 gaatccgggg tccctgatcg attcagtggc agcgggtctg ggtcaaattt cactctcacc 240  
 atcaccagcc tgcaggctga agatgtggca atttattact gtcagcaata ttatagtagt 300  
 ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 480  
 caatcgggta 490

<210> 44  
 <211> 163  
 <212> PRT  
 <213> Homosapien

Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Gly	Ser	Leu	Ala	Val	Ser	Leu	Gly
1				5					10					15	
Glu	Arg	Ala	Thr	Ile	Asn	Cys	Lys	Ser	Ser	Gln	Ser	Ile	Leu	Phe	Arg
			20					25					30		
Ser	Asn	Asn	Lys	Asn	Tyr	Leu	Thr	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln
		35					40				45				
Pro	Pro	Lys	Leu	Leu	Ile	Tyr	Trp	Ala	Ser	Ile	Arg	Glu	Ser	Gly	Val
		50				55					60				
Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Ser	Asn	Phe	Thr	Leu	Thr
65					70					75					80
Ile	Thr	Ser	Leu	Gln	Ala	Glu	Asp	Val	Ala	Ile	Tyr	Tyr	Cys	Gln	Gln
				85					90					95	
Tyr	Tyr	Ser	Ser	Pro	Trp	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile
			100					105					110		
Lys	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp
		115					120					125			
Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn
		130					135				140				
Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn	Ala	Leu

145  
Gln Ser Gly

150

155

160

<210> 45  
<211> 559  
<212> DNA  
<213> Homosapien

<400> 45  
caggtccagc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60  
tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacaggct 120  
cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatcaac 180  
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacaggctac 240  
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacagatcct 300  
ggtggatata gtggctactt tgaccactgg ggccagggaa ccctggtcac cgtctcctca 360  
gcctccacca agggcccatc ggtcttcccc ctggcgccct gctccaggag cacctccgag 420  
agcacagcgg ccctgggctg cctggtcaag gactacttcc ccgaaccggt gacggtgtcg 480  
tggaactcag gcgctctgac cagcggcgtg cacaccttcc cagctgtcct acagtcctca 540  
ggactctact ccctcagca 559

<210> 46  
<211> 186  
<212> PRT  
<213> Homosapien

<400> 46  
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
1 5 10 15  
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu  
20 25 30  
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
35 40 45  
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Asn Ala Gln Lys Phe  
50 55 60  
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Gly Tyr  
65 70 75 80  
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95  
Ala Thr Asp Pro Gly Gly Tyr Ser Gly Tyr Phe Asp His Trp Gly Gln  
100 105 110  
Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val  
115 120 125  
Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala  
130 135 140  
Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser  
145 150 155 160  
Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val  
165 170 175  
Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser  
180 185

<210> 47



<211> 464  
 <212> DNA  
 <213> Homosapien

<400> 47

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gacatcgtga tgacccagtc tccagatttc ctggtctgtgt ctctgggcga gaggcccacc 60
atcaactgca agtccagcca gagtggtttt tacagctcca acaataagaa ctacttagtt 120
tggtaccagc agaaacccgg acagcctcct aagctgctcc ttactgggc atctaccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatagttct 300
ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360
gtcttcactt tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaa 464
  
```

<210> 48  
 <211> 154  
 <212> PRT  
 <213> Homosapien

<400> 48

```

Asp Ile Val Met Thr Gln Ser Pro Asp Phe Leu Ala Val Ser Leu Gly
 1           5           10           15
Glu Arg Pro Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser
 20           25           30
Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln
 35           40           45
Pro Pro Lys Leu Leu Leu Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50           55           60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65           70           75           80
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85           90           95
Tyr Tyr Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100          105          110
Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115          120          125
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130          135          140
Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp
145          150
  
```

<210> 49  
 <211> 476  
 <212> DNA  
 <213> Homosapien

<400> 49

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caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggct 60
tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacaggct 120
cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgatga aacaatctac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaca cacagcctac 240
atggaaactg gcagcctgag atctgaggac acggccgtgt attactgtgc aacacacgat 300
ttttggagtg cttattttta ctactggggc caggggaacc tggtcaccgt ctctcagct 360
tccaccaagg gcccatccgt cttccccctg gcgcctgtct ccaggagcac ctccgagagc 420
  
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acagccgccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtc 476

<210> 50  
<211> 158  
<212> PRT  
<213> Homosapien

<400> 50  
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
1 5 10 15  
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu  
20 25 30  
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
35 40 45  
Gly Gly Phe Asp Pro Glu Asp Asp Glu Thr Ile Tyr Ala Gln Lys Phe  
50 55 60  
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr His Thr Ala Tyr  
65 70 75 80  
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95  
Ala Thr His Asp Phe Trp Ser Ala Tyr Phe Tyr Tyr Trp Gly Gln Gly  
100 105 110  
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
115 120 125  
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu  
130 135 140  
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val  
145 150 155

<210> 51  
<211> 490  
<212> DNA  
<213> Homosapien

<400> 51  
gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60  
atcaactgca agtccagcca gagtgtttta tacggctcca acaataagag ctacttagct 120  
tgggtaccagc agaaaccagg acagcctcct aagctgctca tttactgggc atctaccggg 180  
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
atcagcagcc tgcaggctgc agatgtggca gtttattact gtcagcaaca ttatagtact 300  
ccgtgcagtt ttggccaggg gaccaaactg gagatcaaac gaactgtggc tgcaccatct 360  
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 480  
caatcgggta 490

<210> 52  
<211> 163  
<212> PRT  
<213> Homosapien

<400> 52  
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
1 5 10 15  
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Gly



				85					90					95			
Ala	Arg	Asp	Ile	Ala	Ala	Ala	Gly	Ala	Val	Tyr	Phe	Asp	Tyr	Trp	Gly		
			100					105					110				
Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser		
		115					120					125					
Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala		
	130					135					140						
Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Arg	Thr	Gly	Asp	Gly		
145					150					155					160		
Val	Val	Glu	Leu	Arg	Arg	Pro	Asp	Gln	Arg	Arg	Ala	His	Leu	Pro	Gly		
				165					170					175			
Cys	Pro	Thr	Val	Leu	Arg	Thr											
			180														

<210> 55  
 <211> 458  
 <212> DNA  
 <213> Homosapien

<400> 55  
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60  
 atcacttgcc aggcgagtca ggacattacc acctatttaa attggtatca gcagaaacca 120  
 gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaacagg ggtcccatca 180  
 aggttcagtg gaagtggatc tgggacagat ttactttca ccatcagcag cctgcagcct 240  
 gaagatattg caacatatta ctgtcaacaa tatgataatc tcccgatcac cttcggccaa 300  
 gggacacgac tggagattaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcga 360  
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420  
 cccagagagg ccaaagtaca gggaagggtg ataacgcc 458

<210> 56  
 <211> 152  
 <212> PRT  
 <213> Homosapien

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly		
1				5				10						15			
Asp	Arg	Val	Thr	Ile	Thr	Cys	Gln	Ala	Ser	Gln	Asp	Ile	Thr	Thr	Tyr		
			20					25					30				
Leu	Asn	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Leu	Leu	Ile		
		35					40					45					
Tyr	Asp	Ala	Ser	Asn	Leu	Glu	Thr	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly		
	50				55					60							
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Phe	Thr	Ile	Ser	Ser	Leu	Gln	Pro		
65				70				75						80			
Glu	Asp	Ile	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Tyr	Asp	Asn	Leu	Pro	Ile		
			85					90					95				
Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile	Lys	Arg	Thr	Val	Ala	Ala		
		100					105					110					
Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp	Glu	Gln	Leu	Lys	Ser	Gly		
	115					120					125						
Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn	Phe	Tyr	Pro	Arg	Glu	Ala		
	130				135					140							
Lys	Val	Gln	Gly	Arg	Trp	Ile	Thr										

145

150

&lt;210&gt; 57

&lt;211&gt; 571

&lt;212&gt; DNA

&lt;213&gt; Homosapien

&lt;400&gt; 57

```

caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggct 60
tcctgcaagg ttcccgata caccctcact gaattatcca tgcactgggt gcgacaggct 120
cctggaaaag ggcttgagtg gatgggaggt ttgatcctg aagatgggtga aacaatctac 180
gcacagaagt tccagggcag agtcatgatg accgaggaca catctacaga cacagccttc 240
atggacctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacagacgat 300
atgttgaccc ctactacct ctacttcggt atggacgtct ggggccaagg gaccacggctc 360
accgtctcct cagcttccac caagggccca tccgtcttcc ccctggcgcc ctgctccagg 420
agcacctccg agagcacagc cgccctgggc tgcctgggtca aggactactt ccccgaaaccg 480
gtgacgggtg cgtggaactc aggcgcctg accagcggcg tgcacacctt cccggctgtc 540
ctacagtctt caggactcta ctccctcagc a                                     571

```

&lt;210&gt; 58

&lt;211&gt; 190

&lt;212&gt; PRT

&lt;213&gt; Homosapien

&lt;400&gt; 58

```

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1           5           10           15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
 20           25           30
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35           40           45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
 50           55           60
Gln Gly Arg Val Met Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Phe
 65           70           75           80
Met Asp Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85           90           95
Ala Thr Asp Asp Met Leu Thr Pro His Tyr Leu Tyr Phe Gly Met Asp
 100          105          110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys
 115          120          125
Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu
 130          135          140
Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro
 145          150          155          160
Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
 165          170          175
Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
 180          185          190

```

&lt;210&gt; 59

&lt;211&gt; 458

&lt;212&gt; DNA

<213> Homosapien

<400> 59

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gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctgggatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct acatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcaactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatactt acccattcac tttcggccct 300
gggaccaaag tggatatcaa acgaactgtg gctgcacccat ctgtcttcat cttcccgcca 360
tctgatgagc agttgaaatc tggaaactgcc tctgttgtgt gcctgctgaa taactttctat 420
cccagagagg ccaaagtaca gtggaagggtg gataacgc 458
```

<210> 60

<211> 152

<212> PRT

<213> Homosapien

<400> 60

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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1           5           10           15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
 20          25          30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
 35          40          45
Tyr Ala Thr Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50          55          60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65          70          75          80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Thr Tyr Pro Phe
 85          90          95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100         105         110
Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115         120         125
Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130         135         140
Lys Val Gln Trp Lys Val Asp Asn
145         150
```

<210> 61

<211> 1338

<212> DNA

<213> Homosapien

<400> 61

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cagggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctcagggtg ctccatcagc agtggtggta actactggaa ctggatccgc 120
cagcaccacag ggaagggcct ggagtggatt gggatcatct attacagtgg aaacacctac 180
tacaacccgt ccctcaagag tcgaattacc atatcaatag acacgtctaa gaaccagttc 240
tcctgacccc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat 300
gggtggagacg atgcttttga tatctggggc caagggacaa tggtcaccgt ctcttcagct 360
tccaccaagg gcccatecgt cttccccctg gcgccttgct ccaggagcac ctccgagagc 420
acagccgccc tgggtgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480
aactcaggcg ccctgaccag cggcgtgcac accttccccg ctgtcctaca gtcctcagga 540
```

```

ctctactccc tcagcagcgt ggtgaccgtg ccctccagca gcttggggcac gaagacctac 600
acctgcaacg tagatcacaa gcccagcaac accaaggtgg acaagagagt tgagtccaaa 660
tatgggtcccc catgcccatac atgcccagca cctgagttcc tgggggggacc atcagtcttc 720
ctgttcccccc caaaacccaa ggacactctc atgatctccc ggaccctga ggtcacgtgc 780
gtgggtgggtg acgtgagcca ggaagacccc gaggtccagt tcaactggta cgtggatggc 840
gtggaggtgc ataatgcaa gacaaagccg cgggaggagc agttcaacag cacgtaccgt 900
gtggtcagcg tcctcaccgt cctgcaccag gactggctga acggcaagga gtacaagtgc 960
aaggtctcca acaaaggcct cccgtcctcc atcgagaaaa ccatctccaa agccaaaggg 1020
cagccccgag agccacaggt gtacaccctg ccccatccc aggaggagat gaccaagaac 1080
caggtcagcc tgacctgcct ggtcaaaggc ttctacccca gcgacatcgc cgtggagtgg 1140
gagagcaatg ggcagccgga gaacaactac aagaccacgc ctcccgtgct ggactccgac 1200
ggctccttct tcctctacag caggctaacc gtggacaaga gcaggtggca ggaggggaat 1260
gtcttctcat gctccgtgat gcatgaggct ctgcacaacc actacacaca gaagagcctc 1320
tcctgtctc tgggtaaa 1338

```

<210> 62

<211> 446

<212> PRT

<213> Homosapien

<400> 62

```

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1          5          10          15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
20          25          30
Gly Asn Tyr Trp Asn Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
35          40          45
Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Asn Thr Tyr Tyr Asn Pro Ser
50          55          60
Leu Lys Ser Arg Ile Thr Ile Ser Ile Asp Thr Ser Lys Asn Gln Phe
65          70          75          80
Ser Leu Thr Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85          90          95
Cys Ala Arg Asp Gly Gly Asp Asp Ala Phe Asp Ile Trp Gly Gln Gly
100          105          110
Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
115          120          125
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
130          135          140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
145          150          155          160
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
165          170          175
Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
180          185          190
Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys Pro
195          200          205
Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro Pro
210          215          220
Cys Pro Ser Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val Phe
225          230          235          240
Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
245          250          255
Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu Val
260          265          270

```

Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr
		275					280					285			
Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val
		290				295					300				
Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys
305					310					315					320
Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser	Ile	Glu	Lys	Thr	Ile	Ser
			325					330						335	
Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro
			340					345					350		
Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val
		355					360					365			
Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly
	370					375					380				
Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp
385					390					395					400
Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Arg	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp
			405					410						415	
Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His
			420					425					430		
Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Leu	Gly	Lys		
		435					440					445			

<210> 63  
 <211> 642  
 <212> DNA  
 <213> Homosapien

<400> 63  
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60  
 atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120  
 gggaaagccc ctaaactcct gatctacgat gcatccaatt tggaacagg ggtcccatca 180  
 aggttcagtg gaagtggatc tgggacagat tttactttca ccatcaacag cctgcagcct 240  
 gaagatattg caacatatta ctgtcaagaa tataataatc tcccgtacag ttttggccag 300  
 gggaccaagt tggagatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcga 360  
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420  
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480  
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540  
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600  
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 64  
 <211> 214  
 <212> PRT  
 <213> Homosapien

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5				10					15		
Asp	Arg	Val	Thr	Ile	Thr	Cys	Gln	Ala	Ser	Gln	Asp	Ile	Ser	Asn	Tyr
		20					25					30			
Leu	Asn	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Leu	Leu	Ile
	35					40				45					
Tyr	Asp	Ala	Ser	Asn	Leu	Glu	Thr	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly



50		55		60	
Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Asn Ser Leu Gln Pro					
65		70		75	80
Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Glu Tyr Asn Asn Leu Pro Tyr					
	85		90		95
Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala					
	100		105		110
Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly					
	115		120		125
Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala					
	130		135		140
Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln					
	145		150		155
Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser					
	165		170		175
Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr					
	180		185		190
Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser					
	195		200		205
Phe Asn Arg Gly Glu Cys					
210					

<210> 65

<211> 1341

<212> DNA

<213> Homosapien

<400> 65

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caggtccagc tggtagcagtc tggggctgag gtgaagaagc ctggggcctc agtgcaggctc 60
tcttgcaagg tttccggaga caccctcact gaattatcca tgcactgggt gcgacaggct 120
cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtg aacaatctac 180
gcacggaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagtttac 240
atggagctga gcagcctgag atctgaggac acggccgtgt atttctgtgc aacagattca 300
cgtggatata gtggctactt tgacaactgg ggccaggga ccctgggtcac cgtctcctca 360
gcttcacca agggcccatc cgtcttcccc ctggcgccct gctccaggag cacctccgag 420
agcacagccg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg 480
tggaactcag gcgccctgac cagcggcggtg cacaccttcc cggctgtcct acagtctca 540
ggactctact ccctcagcag cgtggtgacc gtgccctcca gcagcttggg cacgaagacc 600
tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagag agttgagtc 660
aaatatggtc ccccatgccc atcatgccc gcacctgagt tcctgggggg accatcagtc 720
ttcctgttcc ccccaaaacc caaggacact ctcagtatct cccggacccc tgagggtcacg 780
tgcggtggtg tggacgtgag ccaggaagac cccgagggtc agttcaactg gtacgtggat 840
ggcgtggagg tgcataatgc caagacaaag ccgcgaggag agcagttcaa cagcacgtac 900
cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaacggcaa ggagtacaag 960
tgcaaggctc ccaacaaagg cctcccgtcc tccatcgaga aaaccatctc caaagccaaa 1020
gggcagcccc gagagccaca ggtgtacacc ctgcccccat cccaggagga gatgaccaag 1080
aaccagggtc gcctgacctg cctgggtcaaa ggcttctacc ccagcgacat cgccgtggag 1140
tgggagagca atgggcagcc ggagaacaa tacaagacca cgctcccgt gctggactcc 1200
gacggctcct tcttctcta cagcaggcta accgtggaca agagcaggtg gcaggagggg 1260
aatgtcttct catgtccgt gatgcatgag gctctgcaca accactacac acagaagagc 1320
ctctccctgt ctctgggtaa a                                     1341

```

<210> 66

<211> 447

<212> PRT  
 <213> Homosapien

<400> 66

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10					15	
Ser	Val	Gln	Val	Ser	Cys	Lys	Val	Ser	Gly	Asp	Thr	Leu	Thr	Glu	Leu
			20						25					30	
Ser	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met
		35					40						45		
Gly	Gly	Phe	Asp	Pro	Glu	Asp	Gly	Glu	Thr	Ile	Tyr	Ala	Arg	Lys	Phe
	50					55					60				
Gln	Gly	Arg	Val	Thr	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Val	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Phe	Cys
				85					90					95	
Ala	Thr	Asp	Ser	Arg	Gly	Tyr	Ser	Gly	Tyr	Phe	Asp	Asn	Trp	Gly	Gln
			100					105						110	
Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val
	115						120					125			
Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala
	130					135					140				
Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser
145					150					155					160
Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val
			165						170					175	
Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro
		180						185						190	
Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys	Asn	Val	Asp	His	Lys
	195						200					205			
Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Ser	Lys	Tyr	Gly	Pro
	210					215						220			
Pro	Cys	Pro	Ser	Cys	Pro	Ala	Pro	Glu	Phe	Leu	Gly	Gly	Pro	Ser	Val
225					230					235					240
Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr
			245						250					255	
Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	Gln	Glu	Asp	Pro	Glu
		260						265					270		
Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys
	275						280					285			
Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser
	290					295					300				
Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys
305					310					315					320
Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser	Ile	Glu	Lys	Thr	Ile
			325						330					335	
Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro
		340						345					350		
Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu
	355						360					365			
Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn
	370					375					380				
Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser
385				390						395				400	
Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Arg	Leu	Thr	Val	Asp	Lys	Ser	Arg

				405					410					415			
Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu		
			420					425					430				
His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Leu	Gly	Lys			
		435					440					445					

<210> 67  
 <211> 660  
 <212> DNA  
 <213> Homosapien

<400> 67  
 gacatcgtga tgacccagtc tccagactcc ctggetgtgt ctctgggcga gagggccacc 60  
 atcaactgca agtccagcca gagtgtttta tacagotcca acaataacaa ctacttagtt 120  
 tgggtaccagc agaaaccagg acagcctcct aaattgctca ttactgggc atctaccgg 180  
 gaattcgggg ttcctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatttttct 300  
 ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc 480  
 caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc 540  
 ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600  
 gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 68  
 <211> 220  
 <212> PRT  
 <213> Homosapien

<400> 68  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser  
 20 25 30  
 Ser Asn Asn Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Phe Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Tyr Phe Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu  
 145 150 155 160  
 Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp  
 165 170 175  
 Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr

	180		185		190
Glu Lys His	Lys Val Tyr Ala Cys	Glu Val Thr His	Gln Gly Leu Ser		
	195	200	205		
Ser Pro Val	Thr Lys Ser Phe Asn Arg	Gly Glu Cys			
	210	215	220		

<210> 69  
 <211> 556  
 <212> DNA  
 <213> Homosapien

<400> 69  
 caggtccagc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60  
 tcctgcaagg tttccggata caccctcact gatttatcca tgcactgggt gcgacaggct 120  
 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatggtga aacaatctac 180  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catcttcaga cacagcctac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacccacgaa 300  
 ttttggagtg gttatatttga ctactggggc caggggaaccc tggtcaccgt ctcctcagct 360  
 tccaccaagg gcccatccgt cttccccctg gcgccttgct ccaggagcac ctccgagagc 420  
 acagccgccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480  
 aactcaggcg ccctgaccag cggcgtgcac accttccccg ctgtcctaca gtcctcagga 540  
 ctctactccc tcagca 556

<210> 70  
 <211> 185  
 <212> PRT  
 <213> Homosapien

<400> 70  
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1 5 10 15  
 Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Asp Leu  
 20 25 30  
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
 35 40 45  
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe  
 50 55 60  
 Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Ser Asp Thr Ala Tyr  
 65 70 75 80  
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95  
 Ala Thr His Glu Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly  
 100 105 110  
 Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
 115 120 125  
 Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu  
 130 135 140  
 Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp  
 145 150 155 160  
 Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu  
 165 170 175  
 Gln Ser Ser Gly Leu Tyr Ser Leu Ser  
 180 185

<210> 71  
 <211> 476  
 <212> DNA  
 <213> Homosapien

<400> 71  
 gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcca gagggccacc 60  
 atcaactgca agtccagcca gagtggttta ttcagctcca acaataagag ctacttaact 120  
 tgggtaccagc agaaaccagg acagcctcct aaattactca ttttctgggc atctatccgg 180  
 gaatccggggg tccctgaccg aatcagtggc agcgggtctg ggacagatct cactctcacc 240  
 atcagcagcc tgcaggctga agatgcggca gtttattact gtcagcaata ttatagtagt 300  
 ccgtggacgt tccgccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtga taacgc 476

<210> 72  
 <211> 158  
 <212> PRT  
 <213> Homosapien

<400> 72  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Phe Ser  
 20 25 30  
 Ser Asn Asn Lys Ser Tyr Leu Thr Trp Tyr Gln Gln Lys Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Phe Trp Ala Ser Ile Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Ile Ser Gly Ser Gly Thr Asp Leu Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Tyr Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn  
 145 150 155

<210> 73  
 <211> 546  
 <212> DNA  
 <213> Homosapien

<400> 73  
 cagggtccagc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60  
 tcctgcaagg tttccggata caccctcagt gaattatcca tgcactgggt gcgacaggct 120  
 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aataatccac 180  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacaggcgat 300

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ttttggagtg gttattacct tgactggtgg ggccagggaa ccctgggtcac cgtctcctca 360
gcttccacca agggcccatc cgtcttcccc ctggcgccct gctccaggag cacctccgag 420
agcacagccg ccctgggctg cctgggtcaag gactacttcc ccgaaccggg gacgggtgtcg 480
tggaactcag gcgccctgac cagcggcggtg cacaccttcc cggctgtcct acagtctca 540
ggactt
546

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<210> 74
<211> 182
<212> PRT
<213> Homosapien

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<400> 74
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1      5      10      15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Ser Glu Leu
20     25     30
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
35     40     45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Ile Ile His Ala Gln Lys Phe
50     55     60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
65     70     75     80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85     90     95
Ala Thr Gly Asp Phe Trp Ser Gly Tyr Tyr Leu Asp Trp Trp Gly Gln
100    105    110
Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115    120    125
Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130    135    140
Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145    150    155    160
Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165    170    175
Leu Gln Ser Ser Gly Leu
180

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<210> 75
<211> 457
<212> DNA
<213> Homosapien

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<400> 75
gaaatagtga tgatgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagggttaac agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catcaacggg gcatccacca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcacctca ccatcagcag cctgcagtct 240
gaagattttg caatttatta ctgtcagcag tataatgact ggcttacgtt cactttcggc 300
ggagggacca aggtggagat caatcgaact gtggctgcac catctgtctt catcttcccg 360
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 420
tatcccagag aggccaaagt acagtgggaa ggtggat
457

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<210> 76
<211> 152

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<212> PRT  
 <213> Homosapien

<400> 76  
 Glu Ile Val Met Met Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly  
 1 5 10 15  
 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Asn Ser Asn  
 20 25 30  
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile  
 35 40 45  
 Asn Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly  
 50 55 60  
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser  
 65 70 75 80  
 Glu Asp Phe Ala Ile Tyr Tyr Cys Gln Gln Tyr Asn Asp Trp Pro Thr  
 85 90 95  
 Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Asn Arg Thr Val Ala  
 100 105 110  
 Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser  
 115 120 125  
 Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu  
 130 135 140  
 Ala Lys Val Gln Trp Glu Gly Gly  
 145 150

<210> 77  
 <211> 470  
 <212> DNA  
 <213> Homosapien

<400> 77  
 cagggtccagc tggtagcagtc tgggggctgag gtgaagaagc ctgggggcctc agtgaagggtc 60  
 tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacaggct 120  
 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtg aacaatgtac 180  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aaccgacgat 300  
 ttttggagtg gttattttga ctactggggc caggggaacc tggtcaccgt ctccctcagcc 360  
 tccaccaagg gcccatcggt cttccccctg gcgccctgct ccaggagcac ctccgagagc 420  
 acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggcagg 470

<210> 78  
 <211> 156  
 <212> PRT  
 <213> Homosapien

<400> 78  
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1 5 10 15  
 Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu  
 20 25 30  
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
 35 40 45  
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Met Tyr Ala Gln Lys Phe  
 50 55 60

Gln	Gly	Arg	Val	Thr	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Ala	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90						95
Ala	Thr	Asp	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Tyr	Trp	Gly	Gln	Gly
				100				105						110	
Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe
		115					120					125			
Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu
	130					135					140				
Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Ala				
145					150					155					

<210> 79  
 <211> 490  
 <212> DNA  
 <213> Homosapien

<400> 79  
 gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctggacga gagggccacc 60  
 atcaactgca agtccagcca gagtgtttta tacagtccca accaaaagaa ctacttagtt 120  
 tggatcagc agaagccagg acagcctect aagctgctcc ttactgggc atctatccgg 180  
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttattact gtcaacaaag ttattttact 300  
 ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttggtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 480  
 caatcggtga 490

<210> 80  
 <211> 163  
 <212> PRT  
 <213> Homosapien

<400> 80  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Asp  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser  
 20 25 30  
 Pro Asn Gln Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Leu Tyr Trp Ala Ser Ile Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Ser Tyr Phe Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu



145  
Gln Ser Gly

150

155

160

<210> 81  
<211> 556  
<212> DNA  
<213> Homosapien

<400> 81  
caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60  
tcctgcaagg tttccggata caccctcagc gaattatcca tgcactgggt gcgacagggt 120  
cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgatga aacaatctac 180  
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagccttc 240  
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacccacgat 300  
ttttggagtg gttattttca ctactggggc caggggaacc tggtcacctg ctccctcagct 360  
tccaccaagg gcccatccgt cttccccctg gcgccttgct ccaggagcac ctccgagagc 420  
acagccgccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480  
aactcaggcg ccctgaccag cggcgtgcac accttccccg ctgtcctaca gtcctcagga 540  
ctctactccc tcagca 556

<210> 82  
<211> 185  
<212> PRT  
<213> Homosapien

<400> 82  
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
1 5 10 15  
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Ser Glu Leu  
20 25 30  
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
35 40 45  
Gly Gly Phe Asp Pro Glu Asp Asp Glu Thr Ile Tyr Ala Gln Lys Phe  
50 55 60  
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Phe  
65 70 75 80  
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95  
Ala Thr His Asp Phe Trp Ser Gly Tyr Phe His Tyr Trp Gly Gln Gly  
100 105 110  
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
115 120 125  
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu  
130 135 140  
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp  
145 150 155 160  
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu  
165 170 175  
Gln Ser Ser Gly Leu Tyr Ser Leu Ser  
180 185

<210> 83

<211> 476  
 <212> DNA  
 <213> Homosapien

<400> 83  
 gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60  
 atcaactgca agtccagcca gagtggttta tacagctccg acaataagag ctacttagtt 120  
 tgggtaccagc agaaaccagg acagcctcct aagggtgctca tttactgggc atctattcgg 180  
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatactagt 300  
 ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtga taacgc 476

<210> 84  
 <211> 158  
 <212> PRT  
 <213> Homosapien

<400> 84  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser  
 20 25 30  
 Ser Asp Asn Lys Ser Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Val Leu Ile Tyr Trp Ala Ser Ile Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Tyr Thr Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn  
 145 150 155

<210> 85  
 <211> 543  
 <212> DNA  
 <213> Homosapien

<400> 85  
 cagggtccagc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60  
 tcctgtaagg tttccggata caccctcaact gaattatcca tgcactgggt gcgacaggct 120  
 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240  
 atggagctga gcagcctgag atctgaggac acggcctgtg attactgtgc aatccacgag 300  
 ttttgagtg gttattttga ctactggggc caggggaacc tggtcaccgt ctcttcagct 360  
 tccaccaagg gcccatccgt cttccccctg gcgcctgtc ccaggagcac ctccgagagc 420

acagccgccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480  
aactcaggcg ccctgaccag cggcgtgcac accttccccg ctgtcctaca gtcctcagga 540  
ctt 543

<210> 86  
<211> 181  
<212> PRT  
<213> Homosapien

<400> 86  
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
1 5 10 15  
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu  
20 25 30  
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
35 40 45  
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe  
50 55 60  
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr  
65 70 75 80  
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95  
Ala Ile His Glu Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly  
100 105 110  
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
115 120 125  
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu  
130 135 140  
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp  
145 150 155 160  
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu  
165 170 175  
Gln Ser Ser Gly Leu  
180

<210> 87  
<211> 477  
<212> DNA  
<213> Homosapien

<400> 87  
gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60  
atcaactgca agtccagcct gagtgtttta tacagctcca acaataagaa ctatttagtt 120  
tggtaccttc agaaaccagg acagcctcct aagttgctca tttactgggc atctacccgg 180  
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
atcagcagcc tgcaggccga agatgtggca gtttattact gtcagcaata ttatagttct 300  
ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgcc 477

<210> 88  
<211> 159  
<212> PRT  
<213> Homosapien

<400> 88

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
1 5 10 15  
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Leu Ser Val Leu Tyr Ser  
20 25 30  
Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Leu Gln Lys Pro Gly Gln  
35 40 45  
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val  
50 55 60  
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
65 70 75 80  
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
85 90 95  
Tyr Tyr Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
100 105 110  
Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
115 120 125  
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
130 135 140  
Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala  
145 150 155

<210> 89

<211> 1335

<212> DNA

<213> Homosapien

<400> 89

cagggtccagc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60  
tcttgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacagact 120  
cctggaaaag ggcttgagtg gatgggaggt tttgatacctg aagatgggtga aacaatctac 180  
gcacagaagt tccaggacag agtcaccatg accgaggaca catctacaga cacagcctac 240  
atggaactga gcagcctgag atctgaggac acggccgtgt attactgtgc aacaaacgat 300  
ttttggactg gttattatga ctactggggc cagggaaccc tggtcaccgt ctctcagcc 360  
tccaccaagg gcccatcggt cttccccctg gcgccttget ccaggagcac ctccgagagc 420  
acagcgcccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480  
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga 540  
ctctactccc tcagcagcgt ggtgaccgtg ccctccagca acttcggcac ccagacctac 600  
acctgcaacg tagatcaciaa gccagcaac accaaggtgg acaagacagt tgagcgcaaa 660  
tggtgtgtcg agtgcccacc gtgcccagca ccacctgtgg caggaccgtc agtcttctc 720  
ttcccccaa aaccaagga caccctcatg atctcccga cccctgaggt cagtgcggtg 780  
gtggtggacg tgagccacga agaccccag gtccagttca actggtacgt ggacggcggtg 840  
gaggtgcata atgccaagac aaagccacgg gaggagcagt tcaacagcac gttccgtgtg 900  
gtcagcgtcc tcaccgttgt gcaccaggac tggctgaacg gcaaggagta caagtgcaag 960  
gtctccaaca aaggcctccc agcccccatc gagaaaacca tctccaaaac caaagggcag 1020  
ccccgagaac cacaggtgta caccctgccc ccatcccggg aggagatgac caagaaccag 1080  
gtcagcctga cctgcctggt caaaggcttc taccacagcg acatcgccgt ggagtgaggag 1140  
agcaatgggc agccggagaa caactacaag accacacctc ccatgtgtga ctccgacggc 1200  
tccttcttcc tctacagcaa gtcaccgtg gacaagagca ggtggcagca ggggaacgtc 1260  
ttctcatgct ccgtgatgca tgaggtctctg cacaaccact acacgcagaa gagcctctcc 1320  
ctgtctccgg gtaaa 1335

<210> 90

<211> 445  
 <212> PRT  
 <213> Homosapien

<400> 90

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10					15	
Ser	Val	Lys	Val	Ser	Cys	Lys	Val	Ser	Gly	Tyr	Thr	Leu	Thr	Glu	Leu
			20					25					30		
Ser	Met	His	Trp	Val	Arg	Gln	Thr	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met
		35					40					45			
Gly	Gly	Phe	Asp	Pro	Glu	Asp	Gly	Glu	Thr	Ile	Tyr	Ala	Gln	Lys	Phe
	50					55					60				
Gln	Asp	Arg	Val	Thr	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Ala	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90					95	
Ala	Thr	Asn	Asp	Phe	Trp	Thr	Gly	Tyr	Tyr	Asp	Tyr	Trp	Gly	Gln	Gly
			100					105					110		
Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe
		115					120					125			
Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu
	130					135					140				
Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp
145					150					155					160
Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu
				165				170						175	
Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro	Ser
		180						185					190		
Ser	Asn	Phe	Gly	Thr	Gln	Thr	Tyr	Thr	Cys	Asn	Val	Asp	His	Lys	Pro
	195						200					205			
Ser	Asn	Thr	Lys	Val	Asp	Lys	Thr	Val	Glu	Arg	Lys	Cys	Cys	Val	Glu
	210					215					220				
Cys	Pro	Pro	Cys	Pro	Ala	Pro	Pro	Val	Ala	Gly	Pro	Ser	Val	Phe	Leu
225					230					235					240
Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu
				245					250					255	
Val	Thr	Cys	Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Gln	
		260					265					270			
Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys
	275					280					285				
Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Phe	Arg	Val	Val	Ser	Val	Leu
	290					295					300				
Thr	Val	Val	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys
305					310					315					320
Val	Ser	Asn	Lys	Gly	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys
				325					330					335	
Thr	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser
			340					345					350		
Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys
		355				360						365			
Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln
	370					375					380				
Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Met	Leu	Asp	Ser	Asp	Gly
385					390					395					400

Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln  
405 410 415  
Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn  
420 425 430  
His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys  
435 440 445

<210> 91  
<211> 660  
<212> DNA  
<213> Homosapien

<400> 91  
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60  
atcaactgca agtccagcca gagggtttta tacagctcca acaataagaa ctacttagtt 120  
tggtaccagc agaaaccagg acagcctcct aagacgctca ttactgggc atctaccgg 180  
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
atcagcagcc tgcaggctga agatgtggga gtttattact gtcaacaata ttatactagt 300  
ccgtggacgt tcggccaagg gaccaagggtg gaaatcaagc gaactgtggc tgcaccatct 360  
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc 480  
caatcgggta actcccagga gagggtcaca gagcaggaca gcaaggacag cacctacagc 540  
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600  
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 92  
<211> 220  
<212> PRT  
<213> Homosapien

<400> 92  
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
1 5 10 15  
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser  
20 25 30  
Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln  
35 40 45  
Pro Pro Lys Thr Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val  
50 55 60  
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
65 70 75 80  
Ile Ser Ser Leu Gln Ala Glu Asp Val Gly Val Tyr Tyr Cys Gln Gln  
85 90 95  
Tyr Tyr Thr Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
100 105 110  
Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
115 120 125  
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
130 135 140  
Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu  
145 150 155 160  
Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp  
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr  
180 185 190  
Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser  
195 200 205  
Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys  
210 215 220

<210> 93  
<211> 560  
<212> DNA  
<213> Homosapien

<400> 93  
cagggtgcagc tgcaggagtc gggcccagga ctgggtgaagc cgtcacagac cctgtccctc 60  
acctgcactg tctctgggtg ctccatcagc agtgggtggtt actactggag ctggatccgc 120  
cagcaccag ggaagggcct ggagtggtt ggggtacatct attacagtgg gagcacctac 180  
tacaaccgct ccctcaagag tcgagttatc atatcagtag acacgtctaa gaaccagttc 240  
tccctgaagc tgacctctgt gactgccgcg gacacggccg tgtattactg tgcgagatca 300  
tatagcagct cgtccccact gggtcgaccc ctggggccag ggaaccctgg tcaccgtctc 360  
ctcagcttcc accaagggcc catccgtctt ccccttggtg ccctgctcca ggagcacctc 420  
cgagagcaca gccgccctgg gctgcctggt caaggactac ttccccgaac cggtgacggt 480  
gtcgtggaac tcaggcgccc tgaccagcgg cgtgcacacc ttcccggctg tcctacagtc 540  
ctcaggactc tactccctca 560

<210> 94  
<211> 186  
<212> PRT  
<213> Homosapien

<400> 94  
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln  
1 5 10 15  
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly  
20 25 30  
Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu  
35 40 45  
Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser  
50 55 60  
Leu Lys Ser Arg Val Ile Ile Ser Val Asp Thr Ser Lys Asn Gln Phe  
65 70 75 80  
Ser Leu Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr  
85 90 95  
Cys Ala Arg Ser Tyr Ser Ser Ser Ser Pro Leu Val Arg Pro Leu Gly  
100 105 110  
Pro Gly Asn Pro Gly His Arg Leu Leu Ser Phe His Gln Gly Pro Ile  
115 120 125  
Arg Leu Pro Pro Gly Ala Leu Leu Gln Glu His Leu Arg Glu His Ser  
130 135 140  
Arg Pro Gly Leu Pro Gly Gln Gly Leu Leu Pro Arg Thr Gly Asp Gly  
145 150 155 160  
Val Val Glu Leu Arg Arg Pro Asp Gln Arg Arg Ala His Leu Pro Gly  
165 170 175  
Cys Pro Thr Val Leu Arg Thr Leu Leu Pro  
180 185

<210> 95  
 <211> 458  
 <212> DNA  
 <213> Homosapien

<400> 95  
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60  
 atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120  
 gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180  
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240  
 gaagattttg caacttatta ctgtctacag cataatagtt acccattcac tttcggccct 300  
 gggaccaaag tggatatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcc 360  
 tctgatgagc agttgaaatc tggaaactgcc tctgttgtgt gcctgctgaa taacttctat 420  
 cccagagagg ccaaagtaca gtggaagggtg gataacgc 458

<210> 96  
 <211> 152  
 <212> PRT  
 <213> Homosapien

<400> 96  
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly  
 1 5 10 15  
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp  
 20 25 30  
 Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile  
 35 40 45  
 Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly  
 50 55 60  
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro  
 65 70 75 80  
 Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe  
 85 90 95  
 Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala  
 100 105 110  
 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly  
 115 120 125  
 Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala  
 130 135 140  
 Lys Val Gln Trp Lys Val Asp Asn  
 145 150

<210> 97  
 <211> 559  
 <212> DNA  
 <213> Homosapien

<400> 97  
 cagggtccagc tggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60  
 tcttgcaagg tttccggata caccctcact gaattatcca tgactgggt gcgacaggct 120  
 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240



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atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacagatcgc 300
gagttttgga gtggttattt ctaccactgg ggccagggaa ccctggtcac cgtctcctca 360
gcctccacca agggcccatc ggtcttcccc ctggcgccct gctccaggag cacctccgag 420
agcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgctg 480
tggaactcag gcgctctgac cagcggcgctg cacaccttcc cagctgtcct acagtcctca 540
ggactctact ccctcagca                                     559

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<210> 98  
 <211> 186  
 <212> PRT  
 <213> Homosapien

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<400> 98
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1          5          10          15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
 20          25          30
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35          40          45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
 50          55          60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
 65          70          75          80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85          90          95
Ala Thr Asp Arg Glu Phe Trp Ser Gly Tyr Phe Tyr His Trp Gly Gln
100          105          110
Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115          120          125
Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130          135          140
Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145          150          155          160
Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165          170          175
Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
180          185

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<210> 99  
 <211> 491  
 <212> DNA  
 <213> Homosapien

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<400> 99
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tacagctcca acaatgagaa cttcttagct 120
tggtaccagc agaaaccagg acagcctcct aaactgctca tttactgggc atctaccgg 180
gaatccgggg tcccagaccg cttcagtggc agcgggtctg ggacagatth cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttataatagt 300
ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360
gtcttcatct tccgcctatc tgatgagcag ttgaaatctg gaactgcctc tgttggtgtg 420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgcctcc 480
ccaatcgggt a                                     491

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<210> 100  
 <211> 163  
 <212> PRT  
 <213> Homosapien

<400> 100  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser  
 20 25 30  
 Ser Asn Asn Glu Asn Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Tyr Asn Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Ser  
 145 150 155 160  
 Pro Ile Gly

<210> 101  
 <211> 543  
 <212> DNA  
 <213> Homosapien

<400> 101  
 cagggtccagc tgggtacagtc tgggggctgag gtgaagaagc ctgggggcctc agtgaagggtc 60  
 tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacagggt 120  
 cctggaaaag ggcttgagt gatgggaggt tttgatcctg aagatgggtga aacaatctac 180  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacggacgat 300  
 ttttgagtg gttattttga ctactggggc caggggaacc tggtcaccgt ctccctcagcc 360  
 tccaccaagg gcccatcggt cttccccctg gcgccctgct ccaggagcac ctccgagagc 420  
 acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccgggtgac ggtgtcgtgg 480  
 aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga 540  
 ctt 543

<210> 102  
 <211> 181  
 <212> PRT  
 <213> Homosapien

<400> 102  
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu  
                   20                                  25                                  30  
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
                   35                                  40                                  45  
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe  
                   50                                  55                                  60  
 Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr  
   65                                  70                                  75                                  80  
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
                                   85                                  90                                  95  
 Ala Thr Asp Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly  
                                   100                                  105                                  110  
 Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
                   115                                  120                                  125  
 Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu  
                   130                                  135                                  140  
 Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp  
   145                                  150                                  155                                  160  
 Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu  
                                   165                                  170                                  175  
 Gln Ser Ser Gly Leu  
                                   180

<210> 103  
 <211> 491  
 <212> DNA  
 <213> Homosapien

<400> 103  
 gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60  
 atcaactgca agtccagtc gagtgtttta tacagggtcta acaataagag ctacttagtt 120  
 tgggtaccagc agaaactagg acagtctcct aagctgctca tttactgggc atctaccggg 180  
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttattatt gtcaacaata ttatagtact 300  
 ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 480  
 ccaatcgggt a 491

<210> 104  
 <211> 163  
 <212> PRT  
 <213> Homosapien

<400> 104  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
   1                                  5                                  10                                  15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Arg  
                   20                                  25                                  30  
 Ser Asn Asn Lys Ser Tyr Leu Val Trp Tyr Gln Gln Lys Leu Gly Gln  
                   35                                  40                                  45  
 Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val  
                   50                                  55                                  60  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr

65		70		75		80									
Ile	Ser	Ser	Leu	Gln	Ala	Glu	Asp	Val	Ala	Val	Tyr	Tyr	Cys	Gln	Gln
			85						90					95	
Tyr	Tyr	Ser	Thr	Pro	Trp	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile
			100					105					110		
Lys	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp
			115				120					125			
Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn
		130				135					140				
Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn	Ala	Leu
145					150					155					160
Pro	Ile	Gly													

<210> 105  
 <211> 499  
 <212> DNA  
 <213> Homosapien

<400> 105  
 cagggtccagc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60  
 tcttgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacaggct 120  
 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacagacgat 300  
 ttttgagtg gttattttga ctactggggc cagggaaacc tggtcaccgt ctccctcagcc 360  
 tccaccaagg gcccatcggt ctccccctg gcgccttget ccaggagcac ctccgagagc 420  
 acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480  
 aactcaggcg ctctgacca 499

<210> 106  
 <211> 166  
 <212> PRT  
 <213> Homosapien

<400> 106
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
20 25 30
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
35 40 45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Thr Asp Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly
100 105 110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
115 120 125
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
130 135 140

Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp  
 145 150 155 160  
 Asn Ser Gly Ala Leu Thr  
 165

<210> 107  
 <211> 448  
 <212> DNA  
 <213> Homosapien

<400> 107  
 gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60  
 atcaactgca agtccagcca gagtgtttta tacagctcca acaataagaa ctacttagtt 120  
 tgggtaccagc agaaaccagg acagcctcct aagctgctca ttactgggc atctaccgg 180  
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatagtcct 300  
 acgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagagg 448

<210> 108  
 <211> 149  
 <212> PRT  
 <213> Homosapien

<400> 108  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser  
 20 25 30  
 Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Tyr Ser Pro Thr Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu  
 145

<210> 109  
 <211> 540  
 <212> DNA  
 <213> Homosapien

<400> 109

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caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggct 60
tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacaggct 120
cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtg aacaatctac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacggacgat 300
ttttggagtg gttattttga ctactggggc caggggaaccc tggtcaccgt ctccctcagcc 360
tccaccaagg gcccatcggg cttccccctg gcgccctgct ccaggagcac ctccgagagc 420
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtccctcagga 540

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<210> 110
<211> 180
<212> PRT
<213> Homosapien

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<400> 110
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1          5          10          15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
20          25          30
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
35          40          45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
50          55          60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
65          70          75          80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85          90          95
Ala Thr Asp Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly
100          105          110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
115          120          125
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
130          135          140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
145          150          155          160
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
165          170          175
Gln Ser Ser Gly
180

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<210> 111
<211> 478
<212> DNA
<213> Homosapien

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<400> 111
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tacagctcca acaataagaa ctacttagct 120
tggtaccagc agaaaccagg acagcctcct aagctgctca ttactggac atctaccgg 180
gaatccgggg tcctgaccg attcagtggc agcgggtctg tgacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatagttct 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaactgtggc tgcaccatct 360

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gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgcct 478

<210> 112  
<211> 159  
<212> PRT  
<213> Homosapien

<400> 112  
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
1 5 10 15  
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser  
20 25 30  
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln  
35 40 45  
Pro Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val  
50 55 60  
Pro Asp Arg Phe Ser Gly Ser Gly Ser Val Thr Asp Phe Thr Leu Thr  
65 70 75 80  
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
85 90 95  
Tyr Tyr Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
100 105 110  
Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
115 120 125  
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
130 135 140  
Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala  
145 150 155

<210> 113  
<211> 542  
<212> DNA  
<213> Homosapien

<400> 113  
cagggtccagc tggtacagtc tggggctgag gtgaagaagc ctgggggcctc agtgaagggtc 60  
tcttgcaagg tttccggata caccctcagt gaattatcca tgcactgggt gcgacagggt 120  
cctggaaaag ggcttgagt gatgggaggt tttgatcctg aagatgggtga aacaatctac 180  
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240  
atggagctga gcagcctgag atctgaggac acggccgtgt tttactgtgc aacaaagagg 300  
gaatatagt gctactttga ctactggggc caggggaaccc tggtcaccgt ctctcagcc 360  
tccaccaagg gcccatcggt cttccccctg ggcacctgct ccaggagcac ctccgagagc 420  
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480  
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga 540  
ct 542

<210> 114  
<211> 180  
<212> PRT  
<213> Homosapien

<400> 114  
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala

1				5					10					15			
Ser	Val	Lys	Val	Ser	Cys	Lys	Val	Ser	Gly	Tyr	Thr	Leu	Ser	Glu	Leu		
			20						25					30			
Ser	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met		
		35					40						45				
Gly	Gly	Phe	Asp	Pro	Glu	Asp	Gly	Glu	Thr	Ile	Tyr	Ala	Gln	Lys	Phe		
	50					55					60						
Gln	Gly	Arg	Val	Thr	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Ala	Tyr		
65					70					75					80		
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Phe	Tyr	Cys		
				85					90					95			
Ala	Thr	Lys	Arg	Glu	Tyr	Ser	Gly	Tyr	Phe	Asp	Tyr	Trp	Gly	Gln	Gly		
			100					105					110				
Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe		
	115						120					125					
Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu		
	130					135					140						
Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp		
145					150					155					160		
Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu		
				165				170						175			
Gln	Ser	Ser	Gly														
			180														

<210> 115  
 <211> 477  
 <212> DNA  
 <213> Homosapien

<400> 115  
 gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60  
 atcaactgca agtccagcca gagggtttta tacagctcca acagtaagaa ctacttagct 120  
 tgggtccagc agaaaccagg acagcctcct aagctgctca tttactgggc atctaccg 180  
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagccgcc tgcaggctga agatgtggca gtttattcct gtcagcaata ttttattact 300  
 ccgtggacgt tcggccaagg gaccaagggtg gaactcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tccgcctc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgcc 477

<210> 116  
 <211> 159  
 <212> PRT  
 <213> Homosapien

<400> 116																	
Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Asp	Ser	Leu	Ala	Val	Ser	Leu	Gly		
1				5				10					15				
Glu	Arg	Ala	Thr	Ile	Asn	Cys	Lys	Ser	Ser	Gln	Ser	Val	Leu	Tyr	Ser		
			20					25					30				
Ser	Asn	Ser	Lys	Asn	Tyr	Leu	Ala	Trp	Phe	Gln	Gln	Lys	Pro	Gly	Gln		
	35						40					45					
Pro	Pro	Lys	Leu	Leu	Ile	Tyr	Trp	Ala	Ser	Thr	Arg	Glu	Ser	Gly	Val		
	50					55					60						
Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr		



65		70		75		80									
Ile	Ser	Arg	Leu	Gln	Ala	Glu	Asp	Val	Ala	Val	Tyr	Ser	Cys	Gln	Gln
		85		90		95									
Tyr	Phe	Ile	Thr	Pro	Trp	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Leu
		100		105		110									
Lys	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp
		115		120		125									
Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn
		130		135		140									
Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn	Ala	
145				150		155									

<210> 117  
 <211> 459  
 <212> DNA  
 <213> Homosapien

<400> 117  
 cagggtgcagc ctgagcagtc ggggtccagga ctgggtgaagc cctcgcagac cctctcaactc 60  
 acctgtgccca tctccgggga cagtgtctct agcaacagtg ctgcttggaa ctggatcagg 120  
 cagtcacctt cgagaggcct tgagtggctg ggaaggacat actacaggtc caagtggat 180  
 agtgatcatg cagtatctgt gagaagtcga ataaccatct acccagacac atccaagaac 240  
 cagttctccc tgcagctgaa ctctgtgact cccgaggaca cggctgtgta ttactgtgca 300  
 agagatcgga ttagtgggac ctatgtcggt atggacgtct ggggccaaagg gaccacggtc 360  
 accgtctcct cagcctccac caagggccca tcggtcttcc ccctggcgcc cctgctccag 420  
 gagcacctcc gagagcacag cggccctggg ctgcctggc 459

<210> 118  
 <211> 153  
 <212> PRT  
 <213> Homosapien

<400> 118
Gln Val Gln Pro Glu Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Ser Asn
20 25 30
Ser Ala Ala Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu
35 40 45
Trp Leu Gly Arg Thr Tyr Tyr Arg Ser Lys Trp Tyr Ser Asp His Ala
50 55 60
Val Ser Val Arg Ser Arg Ile Thr Ile Tyr Pro Asp Thr Ser Lys Asn
65 70 75 80
Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
85 90 95
Tyr Tyr Cys Ala Arg Asp Arg Ile Ser Gly Thr Tyr Val Gly Met Asp
100 105 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys
115 120 125
Gly Pro Ser Val Phe Pro Leu Ala Pro Leu Leu Gln Glu His Leu Arg
130 135 140
Glu His Ser Gly Pro Gly Leu Pro Gly
145 150

<210> 119  
 <211> 526  
 <212> DNA  
 <213> Homosapien

<400> 119  
 ccagctcagc tcctggggct gctaattgctc tgggtccctg gatccaatga ggatattgtg 60  
 atgaccacaga ctccactctc cctgcccgtc acccctggag agccggcctc catctcctgc 120  
 aggtctagtc agagcctctt ggatagtgat gatggaaaca cctatttggg ctggtacctg 180  
 cagaagccag ggcagtctcc acagctcctg atctatacgc tttcctttcg ggcctctgga 240  
 gtcccagaca ggttcagtgg cagtgggtca ggcactgatt tcacactgac aatcagcagg 300  
 gtggaggctg aggatgttgg agttttattac tgcattgcaac gtatagagtt tcctctcact 360  
 ttccggcggag ggaccaaggt ggagatcaaa cgaactgtgg ctgcaccatc tgtcttcac 420  
 ttcccgccat ctgatgagca gttgaaatct ggaactgcct ctgttgtgtg cctgctgaat 480  
 aacttctatc ccagagagggc caaagtacag tggaagggtg ataacg 526

<210> 120  
 <211> 175  
 <212> PRT  
 <213> Homosapien

<400> 120  
 Pro Ala Gln Leu Leu Gly Leu Leu Met Leu Trp Val Pro Gly Ser Asn  
 1 5 10 15  
 Glu Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro  
 20 25 30  
 Gly Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp  
 35 40 45  
 Ser Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly  
 50 55 60  
 Gln Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Phe Arg Ala Ser Gly  
 65 70 75 80  
 Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu  
 85 90 95  
 Thr Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met  
 100 105 110  
 Gln Arg Ile Glu Phe Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu  
 115 120 125  
 Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser  
 130 135 140  
 Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn  
 145 150 155 160  
 Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn  
 165 170 175

<210> 121  
 <211> 499  
 <212> DNA  
 <213> Homosapien

<400> 121  
 cagggtccagg tgggtacagtc tggggctgag gtgaagaacc ctggggcctc agtgaaggct 60  
 tcctgcaagg tttccggatc caccctcact gaattatcca tgcaactgggt gcgacaggct 120

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cctggaaaag ggcttgagt gatgggaggt tttgatcctg aagatgggtga aacaatctac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagtctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aaccaacgat 300
ttttggagtg gttattttga ctactggggc caggggaaccc tggtcaccgt ctctcagacc 360
tccaccaagg gcccatcggt cttccccctg gcgccttgc ccaggagcac ctccgagagc 420
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480
aactcaggcg ctctgacca                                     499

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<210> 122
<211> 166
<212> PRT
<213> Homosapien

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```

<400> 122
Gln Val Gln Val Val Gln Ser Gly Ala Glu Val Lys Asn Pro Gly Ala
1          5          10          15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Ser Thr Leu Thr Glu Leu
20          25          30
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
35          40          45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
50          55          60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Val Tyr
65          70          75          80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85          90          95
Ala Thr Asn Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly
100          105          110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
115          120          125
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
130          135          140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
145          150          155          160
Asn Ser Gly Ala Leu Thr
165

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```

<210> 123
<211> 536
<212> DNA
<213> Homosapien

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<400> 123
caggtcttca tttctctgtt gctctggatc tctgatgtct atggggacat cgtgatgacc 60
cagtctccag actccctggc tgtgtctctg ggcgagaggg ccaccatcac ctgcaagtcc 120
agccagactg tttatacag ctccaacaat aagaactact tagtttggtg tcagcagaaa 180
tcaggacagc ctcttaagct gctcattcac tgggcatcta tccgggaatc cggggtcctt 240
gaccgattca gtggcagcgg gtctgggaca gatttcacgc tcaccatcag cagcctgcag 300
gctgaagatg tggcagttta ttactgtcag caatattata gtagtccgtg gacgttcggc 360
caagggacca aggtggaaat caaacgaact gtggtgcac catctgtctt catcttcccg 420
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 480
tatcccagag aggccaaagt acagtggaag gtggataacg cccttccaat cgggta 536

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```

<210> 124

```

<211> 178  
 <212> PRT  
 <213> Homosapien

<400> 124  
 Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser Asp Val Tyr Gly Asp  
 1 5 10 15  
 Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly Glu  
 20 25 30  
 Arg Ala Thr Ile Thr Cys Lys Ser Ser Gln Thr Val Leu Tyr Ser Ser  
 35 40 45  
 Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Ser Gly Gln Pro  
 50 55 60  
 Pro Lys Leu Leu Ile His Trp Ala Ser Ile Arg Glu Ser Gly Val Pro  
 65 70 75 80  
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile  
 85 90 95  
 Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln Tyr  
 100 105 110  
 Tyr Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys  
 115 120 125  
 Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu  
 130 135 140  
 Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe  
 145 150 155 160  
 Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Pro  
 165 170 175  
 Ile Gly

<210> 125  
 <211> 414  
 <212> DNA  
 <213> Homosapien

<400> 125  
 caggtgcagg ctgagcagtc ggggtccagga ctgggtgaagc cctcgcagac cctctcactc 60  
 acctgtgcc tctccgggga cagtgtctct agctacagtg ctgcttgga ctggatcagg 120  
 cagtcctcct cgagaggcct tgagtggctg ggaaggacat actacaggtc caagtgggtat 180  
 agtgatcatg cagtatctgt gagaagtcga ataaccatct acccagacac atccaagaac 240  
 cagttctccc tgcagctgaa ctctgtgact cccgaggaca cggctgtgta ttactgtgca 300  
 agagatcgga ttagtgggac ctatgtcggt atggacgtct ggggccaagg gaccacggtc 360  
 accgtctcct cagcctccac caagggcccc atcggtcttc cccctggccc cctc 414

<210> 126  
 <211> 138  
 <212> PRT  
 <213> Homosapien

<400> 126  
 Gln Val Gln Ala Glu Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln  
 1 5 10 15  
 Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Ser Tyr  
 20 25 30

Ser Ala Ala Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu  
35 40 45  
Trp Leu Gly Arg Thr Tyr Tyr Arg Ser Lys Trp Tyr Ser Asp His Ala  
50 55 60  
Val Ser Val Arg Ser Arg Ile Thr Ile Tyr Pro Asp Thr Ser Lys Asn  
65 70 75 80  
Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val  
85 90 95  
Tyr Tyr Cys Ala Arg Asp Arg Ile Ser Gly Thr Tyr Val Gly Met Asp  
100 105 110  
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys  
115 120 125  
Gly Pro Ile Gly Leu Pro Pro Gly Pro Leu  
130 135

<210> 127  
<211> 514  
<212> DNA  
<213> Homosapien

<400> 127  
gtcttcattt ctctgttgct ctggatctct ggtgcctacg gggacatcgt gatgacccag 60  
tctccagact ccctggctgt gtctctgggc gagagggcca ccatcaactg caagtccagc 120  
cagagtgttt tatacagttc caacaataag aactacatag tttggtacca gcagaaacca 180  
gggcagcctc ctaagttgct catttactgg acatctaccg gggaatccgg ggtccctgac 240  
cgattcagtg gcagcgggtc tggaacagat ttcactctca ctatcagtag cctgcaggct 300  
gaagatgtgg cagtttatta ctgtcagcaa tattttagtt ctccgtggac gttcggccaa 360  
gggaccaaag tggacatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcc 420  
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 480  
cccagagagg ccaaagtaca gtggaaggtg gata 514

<210> 128  
<211> 171  
<212> PRT  
<213> Homosapien

<400> 128  
Val Phe Ile Ser Leu Leu Leu Trp Ile Ser Gly Ala Tyr Gly Asp Ile  
1 5 10 15  
Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly Glu Arg  
20 25 30  
Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser Ser Asn  
35 40 45  
Asn Lys Asn Tyr Ile Val Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro  
50 55 60  
Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val Pro Asp  
65 70 75 80  
Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser  
85 90 95  
Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln Tyr Phe  
100 105 110  
Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg  
115 120 125  
Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln

130		135		140
Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu	Leu Asn Asn Phe Tyr			
145	150	155	160	
Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp				
	165	170		

<210> 129  
 <211> 444  
 <212> DNA  
 <213> Homosapien

<400> 129  
 cagtcgggtc caggactggt gaagccctcg cagaccctct cactcacctg tgccatctcc 60  
 ggggacagtg tctctagcaa cagtgtctgt tggaactgga tcaggcagtc cccttcgaga 120  
 ggccttgagt ggctgggaag gacatactac aggtccaagt ggtatagtga tcatgcagta 180  
 tctgtgagaa gtcgaataac catctaccca gacacatcca agaaccagtt ctccctgcag 240  
 ctgaactctg tgactcccga ggacacggct gtgtattact gtgcaagaga tcggattagt 300  
 gggacctatg tcggtatgga cgtctggggc caagggacca cggtcaccgt ctcctcagcc 360  
 tccaccaagg gcccatcggt ctccccctg gcgccccctgc tccaggagca cctccgagag 420  
 cacagcggcc ctgggctgcc tggc 444

<210> 130  
 <211> 148  
 <212> PRT  
 <213> Homosapien

<400> 130  
 Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln Thr Leu Ser Leu Thr  
 1 5 10 15  
 Cys Ala Ile Ser Gly Asp Ser Val Ser Ser Asn Ser Ala Ala Trp Asn  
 20 25 30  
 Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu Trp Leu Gly Arg Thr  
 35 40 45  
 Tyr Tyr Arg Ser Lys Trp Tyr Ser Asp His Ala Val Ser Val Arg Ser  
 50 55 60  
 Arg Ile Thr Ile Tyr Pro Asp Thr Ser Lys Asn Gln Phe Ser Leu Gln  
 65 70 75 80  
 Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg  
 85 90 95  
 Asp Arg Ile Ser Gly Thr Tyr Val Gly Met Asp Val Trp Gly Gln Gly  
 100 105 110  
 Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
 115 120 125  
 Pro Leu Ala Pro Leu Leu Gln Glu His Leu Arg Glu His Ser Gly Pro  
 130 135 140  
 Gly Leu Pro Gly  
 145

<210> 131  
 <211> 505  
 <212> DNA  
 <213> Homosapien

<400> 131

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gggctgctaa tgctctggat acctggatcc agtgcagata ttgggatgac ccagactcca 60
ctctctctgt ccgtcacccc tggacagccg gcctccatct cctgtaagtc tagtcagagc 120
ctcctgtata gtgatggaaa gacctatctg tattggtacc tgcagaagcc aggccagcct 180
ccacaacacc tgatctatga agtttccaac cggttctctg gagtgccaga taggttcagt 240
ggcagcgggt ctgggacaga ttccacactg aaaatcagcc ggggtggaggc tgatgatgtt 300
ggggtttatt actgcatgca aactatacac cttccgctca ctttcggcgg agggaccaag 360
gtggagatcc aacgaactgt ggctgcacca tctgtcttca tcttcccgcc atctgatgag 420
cagttgaaat ctggaactgc ctctgttggtg tgcctgctga ataacttcta tcccagagag 480
gccaaagtac agtggaaaggc ggata 505
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<210> 132

<211> 168

<212> PRT

<213> Homosapien

<400> 132

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Gly Leu Leu Met Leu Trp Ile Pro Gly Ser Ser Ala Asp Ile Gly Met
1          5          10          15
Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly Gln Pro Ala Ser
20          25          30
Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser Asp Gly Lys Thr
35          40          45
Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Pro Pro Gln His Leu
50          55          60
Ile Tyr Glu Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser
65          70          75          80
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu
85          90          95
Ala Asp Asp Val Gly Val Tyr Tyr Cys Met Gln Thr Ile His Leu Pro
100         105         110
Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Gln Arg Thr Val Ala
115         120         125
Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
130         135         140
Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
145         150         155         160
Ala Lys Val Gln Trp Lys Val Asp
165
```

<210> 133

<211> 447

<212> DNA

<213> Homosapien

<400> 133

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gagcagtcgg gtccaggact ggtgaagccc tcgcagaccc tctcactcac ctgtgccatc 60
tccgggggaca gtgtctctag caacagtgtc gcttggaaact ggatcaggca gtccccttcg 120
agaggccttg agtggtctgg aaggacatac tacagggtcca agtggtatag tgatcatgca 180
gtatctgtga gaagtcgaat aaccatctac ccagacacat ccaagaacca gttctccctg 240
cagctgaact ctgtgactcc cgaggacacg gctgtgtatt actgtgcaag agatcggatt 300
agtgggacct atgtcgggtat ggacgtctgg ggccaaggga ccacgggtcac cgtctcctca 360
gcctccacca agggcccatc ggtcttcccc ctggcgcccc tgctccagga gcacctccga 420
gagcacagcg gccctgggct gcctggc 447
```

<210> 134  
 <211> 149  
 <212> PRT  
 <213> Homosapien

<400> 134  
 Glu Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln Thr Leu Ser Leu  
 1 5 10 15  
 Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Ser Asn Ser Ala Ala Trp  
 20 25 30  
 Asn Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu Trp Leu Gly Arg  
 35 40 45  
 Thr Tyr Tyr Arg Ser Lys Trp Tyr Ser Asp His Ala Val Ser Val Arg  
 50 55 60  
 Ser Arg Ile Thr Ile Tyr Pro Asp Thr Ser Lys Asn Gln Phe Ser Leu  
 65 70 75 80  
 Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala  
 85 90 95  
 Arg Asp Arg Ile Ser Gly Thr Tyr Val Gly Met Asp Val Trp Gly Gln  
 100 105 110  
 Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val  
 115 120 125  
 Phe Pro Leu Ala Pro Leu Leu Gln Glu His Leu Arg Glu His Ser Gly  
 130 135 140  
 Pro Gly Leu Pro Gly  
 145

<210> 135  
 <211> 520  
 <212> DNA  
 <213> Homosapien

<400> 135  
 cagggtcttca tttctctgtt gctctggatc tctgggtgcct acgggggacat cgtgatgacc 60  
 cagtctccag actccctggc tgtgtctctg ggcgagaggg ccgccatcaa ctgcaagtcc 120  
 agccagactg ttttatacag ctccaacaat aagaactact tggtttggtgta ccagcagaaa 180  
 ccaggacagc ctcccaagct gctcatttac tgggcatcta cccgggaatc cgggggtccct 240  
 gaccgattca gtggcagcgg gtctgggaca gatttcactc tcaccatcag cagcctgcag 300  
 gctgaagatg tggcagttta ttactgtcaa caatattata aaagtccgtg gacgttcggc 360  
 caagggacca aggtggaaat caaacgaact gtggctgcac catctgtctt catcttcccg 420  
 ccattctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 480  
 tatcccagag aggccaaagt acagtggaag gtggataacg 520

<210> 136  
 <211> 173  
 <212> PRT  
 <213> Homosapien

<400> 136  
 Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser Gly Ala Tyr Gly Asp  
 1 5 10 15  
 Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly Glu  
 20 25 30



Arg	Ala	Ala	Ile	Asn	Cys	Lys	Ser	Ser	Gln	Thr	Val	Leu	Tyr	Ser	Ser
	35						40					45			
Asn	Asn	Lys	Asn	Tyr	Leu	Val	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Pro
	50					55					60				
Pro	Lys	Leu	Leu	Ile	Tyr	Trp	Ala	Ser	Thr	Arg	Glu	Ser	Gly	Val	Pro
65					70					75					80
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile
			85						90					95	
Ser	Ser	Leu	Gln	Ala	Glu	Asp	Val	Ala	Val	Tyr	Tyr	Cys	Gln	Gln	Tyr
		100						105					110		
Tyr	Lys	Ser	Pro	Trp	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys
	115						120					125			
Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp	Glu
	130					135					140				
Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn	Phe
145					150					155					160
Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn			
			165					170							

<210> 137  
 <211> 490  
 <212> DNA  
 <213> Homosapien

<400> 137  
 cagggtccagc tgggtacagtc tgggggctgag gtgaagaagc ctgggggcctc agtgaagggtc 60  
 tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacagggt 120  
 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aaaatgggtga aacaatccac 180  
 gcacagaagt tccagggcag agtcatcatg accgaggaca catctacaga cacagcctac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacagatcag 300  
 ggtggatata gtggctactt tgactgctgg ggccagggaa ccctgggtcac cgtctcctca 360  
 gcttccacca agggcccatc cgtcttcccc ctggcgccct gctccaggag cacctccgag 420  
 agcacagccg ccctgggctg cctggtcaag gactacttcc ccgaaccggt gacggtgtcg 480  
 tggaactcag 490

<210> 138  
 <211> 163  
 <212> PRT  
 <213> Homosapien

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1			5					10					15		
Ser	Val	Lys	Val	Ser	Cys	Lys	Val	Ser	Gly	Tyr	Thr	Leu	Thr	Glu	Leu
		20						25				30			
Ser	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met
	35					40					45				
Gly	Gly	Phe	Asp	Pro	Glu	Asn	Gly	Glu	Thr	Ile	His	Ala	Gln	Lys	Phe
	50					55				60					
Gln	Gly	Arg	Val	Ile	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Ala	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90					95		
Ala	Thr	Asp	Gln	Gly	Gly	Tyr	Ser	Gly	Tyr	Phe	Asp	Cys	Trp	Gly	Gln

	100		105		110										
Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val
	115		120		125										
Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala
	130		135		140										
Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser
145			150		155									160	
Trp	Asn	Ser													

<210> 139  
 <211> 540  
 <212> DNA  
 <213> Homosapien

<400> 139  
 agaccacaggt cttcatttct ctgttgcctt ggatctctgg tgcctacggg gacatcgtga 60  
 tgaccacagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc atcaactgca 120  
 agtccagcca gagtatttta tacagctcca ataataagaa ttatttagtt tggtagcagc 180  
 agaaaccagg acagcctcct aagttgctca tttactgggc atctaccggg gaatccgggg 240  
 tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc atcagcagcc 300  
 tgcaggctga agatgtggca gtttattact gtcagcaata ttatagtagt cctccgacgt 360  
 tcggccaagg gaccaagggt gaaatcaaac gaactgtggc tgcaccatct gtcttcatct 420  
 tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tggtgtgtgc ctgctgaata 480  
 acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc caatcgggta 540

<210> 140  
 <211> 179  
 <212> PRT  
 <213> Homosapien

<400> 140  
 Thr Gln.Val Phe Ile Ser Leu Leu Leu Trp Ile Ser Gly Ala Tyr Gly  
 1 5 10 15  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
 20 25 30  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Ile Leu Tyr Ser  
 35 40 45  
 Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln  
 50 55 60  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val  
 65 70 75 80  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 85 90 95  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 100 105 110  
 Tyr Tyr Ser Ser Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 115 120 125  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 130 135 140  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 145 150 155 160  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu

Gln Ser Gly

165 170 175

<210> 141  
 <211> 518  
 <212> DNA  
 <213> Homosapien

<400> 141  
 accatggagt ggacctggag ggtcctcttc ttggtggcag cagctacagg caccacagcc 60  
 caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaagggtc 120  
 tcttgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacagggt 180  
 cctggaaaag ggcttgagt gatgggaggt tttgatcctg aagatgggtga aacaatctac 240  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 300  
 atggagctga gtagcctgag aactgaggac acggccgtgt attactgtac aacggacgat 360  
 ttttggagt gttattttga ctactggggc caggggaacc tggtcaccgt ctctcagcc 420  
 tccaccaagg gcccatcggg ctccccctg gcgcctgct ccaggagcac ctccgagagc 480  
 acagcggcct gggctgcctg gtcaaggact acttcccc 518

<210> 142  
 <211> 172  
 <212> PRT  
 <213> Homosapien

<400> 142  
 Thr Met Glu Trp Thr Trp Arg Val Leu Phe Leu Val Ala Ala Ala Thr  
 1 5 10 15  
 Gly Thr His Ala Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys  
 20 25 30  
 Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr  
 35 40 45  
 Leu Thr Glu Leu Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly  
 50 55 60  
 Leu Glu Trp Met Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr  
 65 70 75 80  
 Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr  
 85 90 95  
 Asp Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Thr Glu Asp Thr Ala  
 100 105 110  
 Val Tyr Tyr Cys Thr Thr Asp Asp Phe Trp Ser Gly Tyr Phe Asp Tyr  
 115 120 125  
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly  
 130 135 140  
 Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser  
 145 150 155 160  
 Thr Ala Ala Trp Ala Ala Trp Ser Arg Thr Thr Ser  
 165 170

<210> 143  
 <211> 519  
 <212> DNA  
 <213> Homosapien

<400> 143  
caggtcttca tttctctgtt gctctggatc tctgggtgcct acggggacat cgtgatgacc 60  
cagtctccag actccctggc tgtgtctctg ggcgagaggg ccaccatcaa ctgcaagtcc 120  
agccagagtc ttttatacag ctccaaaaat aagaactatt tagtttggtgta ccagcagaaa 180  
ccaggacagc ctccaaagct gctcattaac tgggcatcta cccgggaatc cggggtcctc 240  
gaccgattca gtggcagcgg gtctggggaca gatttcactc tcaccatcag cagcctgcag 300  
gctgaagatg tggcagttta ttactgtcag caatattata gttctccgtg gacgttcggc 360  
caagggacca aggtggaaat caaacgaact gtggctgcac catctgtctt catcttcccg 420  
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 480  
tatcccagag aggcaaagta cagtggaagg tggatacgc 519

<210> 144  
<211> 173  
<212> PRT  
<213> Homosapien

<400> 144  
Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser Gly Ala Tyr Gly Asp  
1 5 10 15  
Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly Glu  
20 25 30  
Arg Ala Thr Ile Asn Cys Lys Ser Gln Ser Leu Leu Tyr Ser Ser  
35 40 45  
Lys Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln Pro  
50 55 60  
Pro Lys Leu Leu Ile Asn Trp Ala Ser Thr Arg Glu Ser Gly Val Pro  
65 70 75 80  
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile  
85 90 95  
Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln Tyr  
100 105 110  
Tyr Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys  
115 120 125  
Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu  
130 135 140  
Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe  
145 150 155 160  
Tyr Pro Arg Glu Ala Lys Tyr Ser Gly Arg Trp Ile Arg  
165 170

<210> 145  
<211> 436  
<212> DNA  
<213> Homosapien

<400> 145  
gagcagtcgg ggggagggcgt ggtccagcct gggaggtccc tgagactctc ctgtgcagcg 60  
tctggattca ccttcagtag ctatggcatg cactgggtcc gccaggctcc aggcaagggg 120  
ctggagtggg tggcagttat atggatatgat ggaaataata aatactatgc agactccgtg 180  
aagggccgat tcaccatctc cagagacact tccaagaaca cgctgtatct gcaaataaac 240  
agcctgagag ccgaggacac ggctgtgtat tactgtgcga gagatagcag ctcgtactac 300  
tactacggta tggacgtctg gggccaaggg accacgggtca ccgtctcctc agcctccacc 360  
aagggcccat cggctcttccc cctggcgccc tgctccagga gcacctccga gagcacagcg 420

gccctgggct gcctgg

436

<210> 146  
<211> 145  
<212> PRT  
<213> Homosapien

<400> 146  
Glu Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg Ser Leu Arg Leu  
1 5 10 15  
Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Gly Met His Trp  
20 25 30  
Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Val Ile Trp  
35 40 45  
Tyr Asp Gly Asn Asn Lys Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe  
50 55 60  
Thr Ile Ser Arg Asp Thr Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn  
65 70 75 80  
Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Ser  
85 90 95  
Ser Ser Tyr Tyr Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr  
100 105 110  
Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu  
115 120 125  
Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys  
130 135 140  
Leu  
145

<210> 147  
<211> 428  
<212> DNA  
<213> Homosapien

<400> 147  
gctcgcgtac ttctcaccct cctcgcgtcac tgcacaggtt cttggggccaa ttttatgctg 60  
actcagcccc actctgtgtc ggagtctccg gggaagacgg taaccatctc ctgcacccgc 120  
agcagtggca gcattgccag caactatgtg cagtgggttc agcagcggcc gggcagttcc 180  
cccaccactg taatctatga ggatgaccaa agaccctctg gggtcctga tcggttctgt 240  
ggctccatcg acagctcctc caactctgcc tcctcacca tctctggact gaggactgag 300  
gacgaggctg actactactg tcagtcttat gatagcagca atcatgtggt attcggcgga 360  
gggaccaagc tgaccgtcct aggtcagccc aaggctgccc cctcggtcac tctgttccc 420  
ccctcctc 428

<210> 148  
<211> 142  
<212> PRT  
<213> Homosapien

<400> 148  
Ala Pro Leu Leu Thr Leu Leu Ala His Cys Thr Gly Ser Trp Ala  
1 5 10 15  
Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys  
20 25 30

Thr	Val	Thr	Ile	Ser	Cys	Thr	Arg	Ser	Ser	Gly	Ser	Ile	Ala	Ser	Asn
	35						40					45			
Tyr	Val	Gln	Trp	Phe	Gln	Gln	Arg	Pro	Gly	Ser	Ser	Pro	Thr	Thr	Val
	50					55					60				
Ile	Tyr	Glu	Asp	Asp	Gln	Arg	Pro	Ser	Gly	Val	Pro	Asp	Arg	Phe	Cys
65					70					75				80	
Gly	Ser	Ile	Asp	Ser	Ser	Ser	Asn	Ser	Ala	Ser	Leu	Thr	Ile	Ser	Gly
			85						90					95	
Leu	Arg	Thr	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys	Gln	Ser	Tyr	Asp	Ser
		100						105					110		
Ser	Asn	His	Val	Val	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Thr	Val	Leu	Gly
	115					120					125				
Gln	Pro	Lys	Ala	Ala	Pro	Ser	Val	Thr	Leu	Phe	Pro	Pro	Ser		
	130					135					140				

<210> 149

<211> 76

<212> PRT

<213> Homosapien

<400> 149

Gln	Pro	Asp	Ala	Ile	Asn	Ala	Pro	Val	Thr	Cys	Cys	Tyr	Asn	Phe	Thr
1				5					10					15	
Asn	Arg	Lys	Ile	Ser	Val	Gln	Arg	Leu	Ala	Ser	Tyr	Arg	Arg	Ile	Thr
		20						25					30		
Ser	Ser	Lys	Cys	Pro	Lys	Glu	Ala	Val	Ile	Phe	Lys	Thr	Ile	Val	Ala
		35					40					45			
Lys	Glu	Ile	Cys	Ala	Asp	Pro	Lys	Gln	Lys	Trp	Val	Gln	Asp	Ser	Met
	50					55					60				
Asp	His	Leu	Asp	Lys	Gln	Thr	Gln	Thr	Pro	Lys	Thr				
65					70						75				